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Analyzing Commodity Council Development and Implementation: The Air Force Furnishings Commodity Council

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ANALYZING COMMODITY COUNCIL DEVELOPMENT AND IMPLEMENTATION: THE AIR FORCE FURNISHINGS COMMODITY COUNCIL

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ABSTRACT

This study seeks to understand the factors that contributed to the successful development and implementation of the Air Force Furnishings Commodity Council (AFFCC). Specifically, we explore the challenges associated with supporting small business goals without sacrificing strategic outcomes, the difficulties of standing up a commodity council whose spend has no functional ownership or centralized funding, and the complexities of establishing accurate cost savings performance and validation metrics. We also explore the concept of maximizing the utilization of the AFFCC by Air Force organizations.

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LIST OF ACRONYMS AND ABBREVIATIONS

AF	Air Force
AFAA	Air Force Audit Agency
AFCEE/TDB	Air Force Center for Engineering and the Environment/ Technical Directorate Built Infrastructure
AFFARS	Air Force Federal Acquisition Regulations
AFFCC	Air Force Furnishings Commodity Council
AFITCC	Air Force Information Technology Commodity Council
AFLMA	Air Force Logistics Management Agency
AFSBSC	Air Force Small Business Solution Center
AMC	Air Mobility Command
ASCC	Aircraft Structures Commodity Council
BPA	Blanket Purchase Agreement
BPR	Business Process Reengineering
CAMP	Commodity Acquisition Management Plan
CAPS	Center for Advanced Procurement and Supply
CBT	Computer-Based Training
CC	Commodity Council
CICA	Competition in Contracting Act
CONS	Contracting Squadron
DoD	Department of Defense
DPAP	Defense Procurement and Acquisition Policy
ESG	Enterprise Sourcing Group
FAR	Federal Acquisition Regulation
FCC	Furnishings Commodity Council
FDCC	Federal Desktop Core Configuration Compliance
FSC	Federal Supply Code
FSS	Federal Supply Schedule
FSSI	Federal Strategic Sourcing Initiative
GSA	General Services Administration
IAG	Installation Acquisition Group

IAT	Installation Acquisition Transformation
IDIQ	Indefinite Delivery Indefinite Quantity
IG	Informational Guidance
IGE	Independent Government Estimate
IOMA	Institute of Management and Administration
KCX	Airborne Fuel Tanker/Cargo
LGCC	Landing Gear Commodity Council
LPTA	Lowest Priced Technically Acceptable
MAJCOM	Air Force Major Command
MRO	Maintenance, Repair, and Operations
NAICS	North American Industry Classification System
NCVA	National Committee on Value Analysis
NEOCON	National Exposition of Contract Furnishings
NETCENTS	Network Centric Solutions Contracts
NPM	Not-for-Profit Managers
NPS	Naval Postgraduate School
O&M	Operations and Maintenance
OFFP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
PSC	Product Service Code
R&D	Research and Development
RFI	Request for Information
RQ	Research Question
SAF	Secretary of the Air Force
SAF/AQC	Assistant Secretary of the Air Force (Contracting)
SECDEF	Secretary of Defense
SET	Social Exchange Theory
SKU	Stock Keeping Unit
TCE	Transaction Cost Economics
TCO	Total Cost of Ownership
TPC	Theory of Production Competence
U.S.	United States

USCENTCOM	United States Central Command
USAF	United States Air Force
USSOCOM	United States Special Operations Command
UT	University of Tennessee

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I. INTRODUCTION

Mandatory spending outlays have shrunk the federal budget allocation for discretionary spending (USD[AT&L], 2010). This puts the Department of Defense (DoD) under pressure to find cost savings. The pressure is apparent in the Office of Management and Budget's (OMB) memorandum that requires agencies to develop a plan to reduce contract spending by 7% by the end of fiscal year (FY) 2011 and to reduce high-risk contracts (i.e., noncompetitive contracts, time and materials contracts, etc.) by 10% (Orszag, 2009). To reduce the overall DoD budget, the Secretary of Defense (SECDEF) directed the DoD to pursue wide-ranging efficiency initiatives that would reduce $100 billion from the $400 billion spent annually on goods and services (USD[AT&L], 2010).

A. BACKGROUND

The U.S. government continues to outsource at an exponential rate. "In FY2010, the U.S. government obligated $535 billion for contracts for the acquisition of goods, services, and research and development. The $535 billion obligated on contracts is equal to 15% of the entire FY2010 U.S. budget of nearly $3.6 trillion" (Schwartz, Ginsberg, & Alexander, 2011). According to USAspending.gov (2011), the DoD obligated $367.5 billion in FY10; this comprises approximately 70% of total government contractual obligations. Figure 1 illustrates government contract obligations by agency. As a result of the significant amount of government contract obligations and the increasing budget constraints, strategic sourcing has become a key tool in the effort to become more efficient.

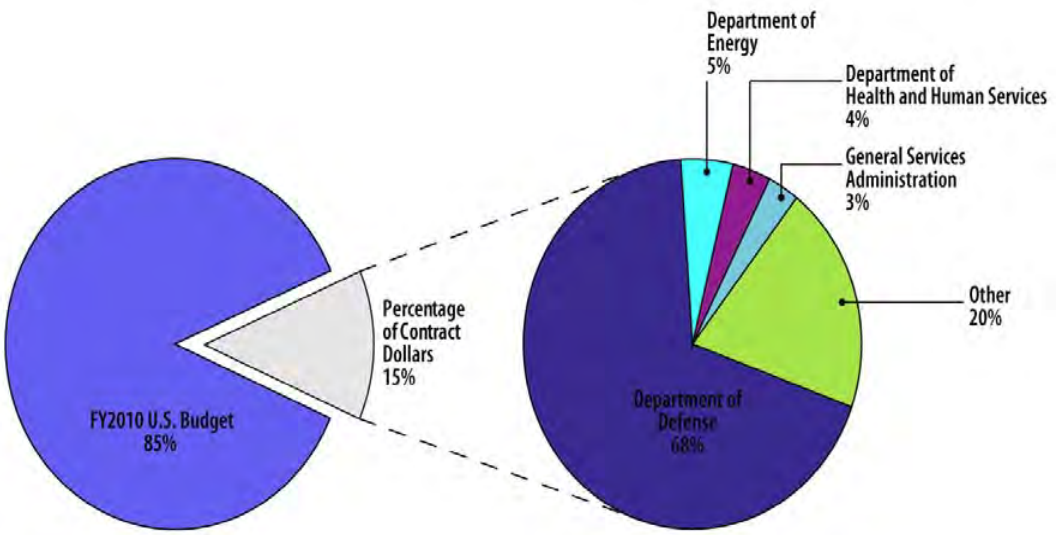


Figure 1. Contract Obligations by Agency FY2010
(From: Schwartz, Ginsberg, & Alexander, 2011, p. 2)

Strategic sourcing is in the early adoption stage within the DoD and has yet to become a core competency (Rendon, 2005). The first known strategic sourcing activities in the DoD were initiated by the Air Force in 2001 as an offspring of the "Spares Campaign." In 2001, the Air Force created a *purchasing and supply chain management* track within its Education with Industry intern program, and sent six officers—one contracting and one supply—to three Fortune 500 firms (FedEx, IBM, and NCR) to observe industry best practices. At this time, the Air Force began to consolidate sole source spare parts onto existing requirements contracts in order to save acquisition lead time and to reduce inventory costs. In 2003, the Air Force stood up the first commodity council focused on strategically sourcing information technology items and services. In 2004, additional commodity councils began to operate that the three Air Logistics Centers. By 2008, the USAF realized over $78M in cost savings through strategic sourcing, created the Acquisition Management Integration Center (AMIC), which was a center of excellence dedicated to the strategic sourcing of services, and began to restructure to support strategic sourcing under the Installation Acquisition Transformation (IAT) (USAF, 2009).

"In May 2003, the Department of Defense officially initiated strategic sourcing activities by establishing the DoD-Wide Strategic Sourcing Program (DWSS)" (U.S. DoD, 2006, p. 1). The DWSS was the first strategic sourcing program developed by the DoD to improve acquisition efficiency and effectiveness (Censeo, 2004). In 2005, the DWSS produced a Concept of Operations (CONOPS) (U.S. DoD, 2006). The CONOPS was the first strategic sourcing operational model that defined the DWSS' governance structure, roles and responsibilities, and the strategic sourcing process (Censeo, 2004). The CONOPS led the Air Force to formalize its strategic sourcing policy in 2006 with the creation of Instructional Guidance (IG) IG5307.104-93 in the Air Force Federal Acquisition Regulations Supplement (AFFARS) (U.S. DoD, 2007). The IG policy was updated in 2010 (USAF, 2010).

The DoD and its various agencies continue to explore ways to improve acquisition. This exploration into strategic sourcing is clearly defined in the Defense Procurement and Acquisition Policy's (DPAP) vision to "institutionalize strategic sourcing across the DoD supply chain to better meet warfighter needs and maximize taxpayer value" (DPAP, 2011). The DPAP's four broad objectives for strategic sourcing include (1) coordinating with DoD components and other defense agencies, (2) fostering a culture of strategic decision-making with respect to the acquisition of commodities and services, (3) leveraging information technology systems to increase enterprise-wide awareness of contract spend data, and (4) developing, training, and organizing the DoD acquisition enterprise to effectively execute strategic sourcing initiatives (DPAP, 2011). In particular, the U.S. Air Force (USAF, 2009a) listed seven initiatives in its *Air Force Contracting Strategic Plan 2009–2013* to enable strategic sourcing across the enterprise (p. 19). These initiatives include:

- Develop a robust Air Force-wide strategic sourcing process with clearly defined roles and responsibilities
- Continue to grow the number of Commodity Councils
- Strengthen support of partnerships and strategic sourcing activities across the Federal Government
- Research and implement strategic sourcing Best Practices technical tools

- Continue to support strategic sourcing enablers, including implementation of the Installation Acquisition Transformation (IAT)
- Develop and deploy strategic sourcing training materials
- Institute a strategic sourcing and commodity council outreach and awareness program

The strategic sourcing initiatives identified above illustrate a change from the tactical purchasing strategy, employed by the U.S. military since its establishment in 1789, to a strategic purchasing strategy. As a result, the DoD's culture and organizational structure supports tactical procurement, not strategic procurement. Tactical purchasing typically uses a decentralized organizational structure that supports only a local mission or unit and does not coordinate with other buying activities. Tactical purchasing makes it difficult to manage enterprise-wide purchasing activities and tactical purchasing limits the ability of the purchasing organization to interact with and advise the CEO in regards to purchasing strategies (Moody, 2001). Strategic procurement, on the other hand, is typically centralized or center-led. Strategic procurement views purchasing activities across the entire enterprise to seek out efficiencies to meet the same mission needs, but at reduced costs and better performance.

Strategic procurement affects the entire enterprise. Therefore, strategically procured requirements require complete organization buy-in. Congress allocates funds to each Service who, in turn, delegates fund execution to lower levels. This creates high procurement fragmentation of similar requirements. In addition, strategic sourcing initiatives require accurate, consistent, objective, and verifiable cost savings performance and validation methodology. Strategic sourcing initiatives such as commodity councils form voluntarily. Once a strategic sourcing initiative starts, voluntary participation makes the development and implementation processes proceed slowly. Since contracting cannot "own" the requirement, finding a functional "owner" of the spend can prove difficult for commodity councils. Finally, after the sourcing initiative is implemented, a process must be established to steer all decentralized funds toward the strategically sourced contracts. Without a high-level procurement official—such as a chief procurement officer (CPO) —in the organizational structure, strategic sourcing initiatives

become difficult to manage. The lack of a high-level manager to oversee strategic sourcing initiatives also makes implementation of socio-economic goals difficult.

The federal government must consider balancing between cost efficiency goals and socioeconomic goals when implementing strategic sourcing initiatives. Since the passage of the Small Business Act of 1953, the federal government sought to significantly increase small business participation in government procurement. As part of the Small Business Act of 1953,

> It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small-business concerns in order to preserve free competitive enterprise, to insure that a fair proportion of the total purchases and contracts or subcontracts for property and services for the Government (including but not limited to contracts or subcontracts for maintenance, repair, and construction) be placed with small-business enterprises, to insure that a fair proportion of the total sales of Government property be made to such enterprises, and to maintain and strengthen the overall economy of the Nation. (1953, § 661)

Additionally, Congress created the Small Business Administration (SBA) to assist small business participation in federal government procurement and to ensure small businesses receive a fair proportion of federal government contracts (SBA, 1953). Congress continues to refine the goals established by the Small Business Act of 1953, specifically establishing separate small business set-aside goals for government agencies. Table 1 states the statutory goals mandated by the Small Business Act, the Office of Federal Procurement Policy Act, the Business Opportunity Development Reform Act of 1988, the Federal Acquisition Streamlining Act of 1994, and the Small Business Reauthorization Act of 1997 (OFFP, 1999). Each federal government agency negotiates their respective small business goals with the SBA. The SBA provides a scorecard to each federal agency to identify how well they meet their small business objectives. As shown in Appendix E, in 2010, the DoD met the small disadvantaged business and HUBZone goals while not meeting the small business, women-owned small business, and service-disabled veteran-owned small business goals (SBA, 2011). Overall, the DoD received a “B” rating, averaging a 93.5% overall grade (SBA, 2011).

Table 1. Federal Government Small Business Procurement Goals
(From: OFFP, 1999)

Federal Government Small Business Procurement Goals
• 23% of prime contracts for small businesses • 5% of prime and subcontracts for women-owned small businesses • 5% of prime and subcontracts for small disadvantaged businesses • 3% of prime and subcontracts for service-disabled veteran-owned small businesses • 3% of prime subcontracts for HUBZone small businesses

Since the DoD has not met three of their primary small business goals, external pressure from Congress, SBA, and small businesses subsequently increased. However, the efficiency savings from consolidation or bundling can make meeting small business goals difficult. Consolidation or bundling of requirements increases the scope of work performed by the contractor. Since a firm's revenue or number of employees determines the small business designation within its industry, the increased scope can make it difficult to obtain competitive offers from two or more small businesses. Subsequently, consolidated or bundled requirements could be issued as *unrestricted* requiring small businesses to compete directly with large businesses. Therefore, the DoD faces the difficulty of balancing cost efficiency goals with socio-economic goals.

The knowledge gained through an examination of the pitfalls, barriers, best practices, and lessons learned during the development and implementation of current commodity councils can increase the effectiveness and efficiency of commodity councils across the federal government. This analysis focuses specifically on the Air Force's Furniture Commodity Council (AFFCC).

B. PROBLEM IDENTIFICATION

The Air Force spends approximately 50% of its budget on the purchase of goods and services (Gillen, 2006). Maintenance and operating costs caused the Air Force to embark on a significant shift in its acquisition strategy to sustain and support the warfighter (Gillen, 2006). To develop and implement enterprise-wide procurement, the Air Force is utilizing commodity councils. According to the Secretary of the Air Force (SAF), "the term commodity council … describes a cross-functional group charged with

formulating a centralized purchasing strategy and establishing centralized contracts for enterprise wide requirements" (Gillen, 2006, p. 34).

Among the most prominent means by which commodity councils reap substantial savings are leveraging purchase volume and rationalizing suppliers. IBM saved millions by reducing its suppliers by 8%. Deere & Co. reduced the cost of maintenance, repair, and operations (RO) supplies by 13%; Lucent Technologies reduced the cost of some commodities by 50%; Cessna Aircraft improved production inventory returns by 113%; Hewlett-Packard saved $1 billion in material costs (Rendon, 2005, pp. 12–13). The Air Force also achieved savings with the Air Force Information Technology Commodity Council (AFITCC). By standardizing and aggregating its purchase of desktop and laptop computers, the Air Force saved more than $167 million (Federal Desktop Core Configuration Compliance [FDCC], 2011).

It is important that commodities continue to be analyzed by the DoD for these potential savings. In FY08 alone, the Air Force realized $78 million in cost savings through strategic sourcing. The Aircraft Structures Commodity Council (ASCC) realized $4.4 million in cost savings. The ASCC also reduced its acquisition lead-time from months to 40 days as a result of sourcing strategies. The Landing Gear Commodity Council (LGCC) realized a savings of $4.3 million. Additionally, the LGCC rationalized its supplier base by reducing its number of suppliers from 378 in FY07 to 149 in FY08 (DoD, 2009).

Commodity councils offer unparalleled efficiency and effectiveness. The Air Force fully supports its goal to posture itself as a demanding customer to suppliers through the mandatory use of commodity councils (USAF, 2009a). However, with the increasing use of commodity councils within the Air Force, there are a number of issues that need to be addressed.

The first issue that we identified was the lack of understanding of the factors that contributed to the successful development and implementation of the AFFCC and its sourcing strategies. Specifically, the Air Force doesn't have adequate dissemination of lessons learned from prior commodity council rollouts. Hence, the knowledge

management within the Air Force is not very robust. The Air Force does have a repository of files that can be found in the Contracting website. In addition, there are a few NPS theses that examined commodity councils and USAF strategic sourcing efforts (e.g., Osborn and Schoonmaker, 2007), but they are not well known by practitioners. As a result, there is no follow-up research with respect to the NPS theses. Therefore, we do not know whether the weaknesses cited in the 2007 NPS thesis have been resolved? We also don't understand why strategic sourcing strategies take so long to develop and implement. Clearly, more research is needed to explore these issues.

The second issue that must be explored is the conflicting guidance with respect to the use of the small business program, mandated by the Small Business Act of 1953, and strategic sourcing (Bail, 2009). One could argue that strategic sourcing goals are impeded by small business goals. Yet, the U.S. government continues to steer contracts to small businesses and to increase the use of strategic sourcing. It is the U.S. government's policy to support small business participation in contracts to the maximum extent possible (Federal Acquisition Regulation [FAR], 2011). However, there is a lack of research that determines whether supporting small business goals sacrifices strategic sourcing outcomes. Bowman, Reed, Hudgens, and Searle (2006) asked the question, "How can a procurement organization simultaneously concentrate the supply base while increasing subcontracting goals and improving small business access to business opportunities" (p. 40)?

However, not everyone agrees that meeting small business goals and strategic sourcing are mutually exclusive. In a memorandum for chief acquisition officers, senior procurement officials, and agency small business directors, OMB states,

> A number of agencies already have identified impressive examples of saving taxpayers money by contracting with small businesses and, at the same time, taking greater advantage of fiscally responsible contracting practices, such as use of competition and lower-risk fixed-price contracts; small business contracting tools, such as competitive set-asides; and better use of technology. (Gordon, Mills, & Hinson, p. 8)

Examples of this success include the Air Force Medical Services Commodity Council awarding 100% of the $40.7 million 2006 fiscal year funding to small business;

Information Technology Commodity Council achieving a 12% small business spend on $181.3 million; and the Air Force Force Protection Commodity Council awarding three small business contracts in the amount of $400 million (Stonerock, 2008). In addition, small business goals were supported by the OMB memorandum dated February 11, 2011, which called for the increase of small business participation in federal contracting (Gordon et al., 2011).

The third issue with respect to the use of commodity councils within the Air Force is whether the commodity councils can achieve cost savings objectives in cases in which the council has no functional ownership of spend or centralized funds (i.e., the furnishings commodity council does not generate requirements for furnishings or control the funds allocated to procure furnishings). The lack of spend ownership makes it difficult for the commodity council to ensure compliance with procurement policy. The lack of compliance results in commodity council efficiency loss.

A fourth issue involving strategic sourcing via commodity council concerns the measurement of savings. The commodity councils have reported significant savings, but these cost savings are proving difficult to verify (Air Force Audit Agency [AFAA], 2010). A question that remains unanswered is whether commodity councils can establish accurate and consistent cost savings metrics. Cost savings provide the measure of commodity council effectiveness. The AFAA recently found that the commodity councils inconsistently computed savings and reported savings that could not be validated (AFAA, 2010). According to the AFAA, "this condition occurred because SAF/AQC [Air Force Contracting] did not issue sufficient and timely guidance, provide adequate resources, or establish a stable management structure for commodity councils to perform effectively" (AFAA, 2010, p. 5). The issue remains as to how to validly, accurately, and consistently measure cost savings and whether the identified cost savings metrics support the cost savings objectives.

The final unanswered question about commodity councils is whether they can maximize utilization of their respective contracts and control "*maverick*" spending by organizations. Maverick spend is defined as spend that is purchased outside of a mandatory purchasing process (i.e., outside of an in-place contract). It is essential for the

Air Force to use its mandatory purchasing processes to procure goods and services. Without the mandatory use of strategic sourcing purchasing processes, significant savings will not be realized. Maverick spending is caused by customers who fear a change in the supply process because they do not want to disturb the current supplier relationship due to some specific reason, a lack of planning, a desire for control, and/or a need for responsiveness. Therefore, commodity councils must put in place processes that deter maverick spending by giving customers flexibility, thus deterring the need to buy "off-contract" (Reese & Pohlman, 2005).

The problems previously discussed within the AFFCC led to the need for this study. Specifically, this study will seek to understand the factors that contributed to the successful development and implementation of the AFFCC and its sourcing strategies. The primary goals are to identify the key factors that led to the development and implementation of sourcing strategies, document and analyze challenges and successes of the AFFCC development and implementation, and provide a case study of the AFFCC to improve the future implementations of effective commodity councils. The study will accomplish its goals via the discussion of the following five project objectives:

1. Understand the factors that contributed to the successful development and implementation of the AFFCC acquisition strategies.
2. Document and analyze the challenges and successes during the AFFCC strategy development and implementation process. Specifically, this research will explore the challenges associated with supporting small business goals while not sacrificing strategic outcomes (e.g., increased savings, reduced transaction costs, and improved supplier performance)
3. Explore the difficulties of standing up a commodity council whose spend has no functional ownership or centralized fund allocation – issues not uncommon to indirect spend. Here, the organizational processes and the organizational structure will be examined for lessons learned, best practices, and barriers to efficiency.
4. Document and analyze how the AFFCC computes cost savings in order to determine efficiency. Specifically, this research will explore the challenges associated with establishing accurate, consistent, objective, and verifiable cost

savings performance and validation methodology and accountability for the associated savings.

5. Explore the difficulties of controlling utilization of the AFFCC. Here, the accountability process will be examined for lessons learned and best practices to maximize AFFCC effectiveness and mitigate "maverick" furnishings spending by organizations.

C. METHODOLOGY

In this study, an explanatory case study methodology (Yin, 2003) is used to investigate the research questions. A case study methodology answers the "how" or "why" questions purposed by researchers (Yin, 2003). As stated earlier, in this study we seek to answer specific questions about the design and implementation of the AFFCC. We explored qualitative analyses of peer-reviewed literature, theories, government policies, directives, and guides, and we conducted interviews with past and present members of the AFFCC. We analyzed the interviews to identify common themes and to reduce informant bias. Additionally, we collected data from multiple sources to eliminate subjectivity.

D. IMPLICATIONS

A study that identifies the successes and challenges of commodity council development and implementation can offer tremendous insight and utility to practitioners. Each commodity council has its own unique issues. However, documenting and analyzing the successes and challenges experienced by each commodity council individually provides a greater understanding of the overall development and implementation process. Furthermore, identifying how commodity councils compute cost savings provides a benchmark for future commodity councils. Without a greater understanding of government commodity council development and implementation process, the DoD will continue its slow progression toward full management of spend. Therefore, an explanatory study of the AFFCC garners insights needed to understand, apply and replicate the commodity council development and implementation process.

E. SUMMARY

In this chapter, we provided the background, problem identification, research objectives, and research implications associated with the development and implementation of the AFFCC commodity council. In Chapter II, we discuss topics relevant to strategic sourcing including theories underpinning strategic sourcing, purchasing's strategic evolution, DoD acquisition policies and directives¸ organizing for strategic sourcing, and barriers to strategic sourcing. Finally, we conclude the chapter by discussing business process reengineering and change management. Chapter II provides the framework for understanding the development and implementation of strategic sourcing initiatives within the DoD.

II. LITERATURE REVIEW

A. CHAPTER OVERVIEW

In this chapter, we provide a brief review of topics relevant to strategic sourcing. The chapter begins with the discussion of various theories and outlines the evolution of strategic sourcing, which includes Kraljic's (1983) Purchasing Portfolio Approach and current sourcing strategies. Next, we discuss DoD acquisition policies and directives, organization for strategic sourcing, and barriers to strategic sourcing. Finally, we conclude the chapter by defining business process reengineering and change management and discussing how organizations can utilize these concepts to transform mechanized purchasing to strategic sourcing.

B. THEORIES

Scholars conceptualize and create theories to help explain and predict phenomena. Facts, assumptions, and hypotheses converge in theory. Facts are the foundation of theories because the absence of facts results in fiction. Therefore, theories, which can only be disapproved, allow a plausible explanation of phenomena supported through continuous experimentation and exploration. According to Garrison (2000), "theoretical inquiry is central to the vitality and development of a field of practice—not to mention its recognition and credibility from those not yet initiated in the field" (p. 3). In addition, Garrison (2000) stated that theory is "invaluable in guiding the complex practice of a rational process" (p. 3). Many theories provide insight into the procurement processes and relationships. We summarized transaction cost economics, agency theory, institutional theory, social exchange theory, and theory of production competence since they provide a framework for understanding the development of strategic sourcing.

1. Transaction Cost Economics

In 1934, John R. Commons advanced transaction theory when he recognized governance structures that mediated the exchange of goods and services between separate entities (Williamson, 1981, p. 550). Coase (1937) further advanced the theory of

transaction cost economics (TCE), also called transaction cost analysis or transaction cost theory, in his 1937 article "The Nature of the Firm." Coase (1937) stated the following:

> Why is not all production carried on by one big firm? … First, as a firm gets larger, there may be decreasing returns to the entrepreneur function, that is, the cost of organizing additional transactions within the firm may rise. … Secondly, it may be that as the transactions which are organized increase, the entrepreneur fails to place the factors of production in the uses where their value is greatest, that is, fails to make the best use of the factors of production. … Finally, the supply price of one or more of the factors of production may rise, because the "other advantages" of a small firm are greater than those of a larger firm. … a firm will tend to expand until the costs of organizing an extra transaction within a firm become equal to the costs of organizing in another firm. (pp. 394–395)

When a transaction occurs, there is a cost associated with that transaction. As Hobbs (1996) wrote, "transaction costs are simply the costs of carrying out any exchange, whether between firms in a marketplace or a transfer of resources between stages in a vertically integrated firm" (p. 17).

Shook, Adams, Ketchen, and Craighead (2009) identified TCE as one of eight theories important to strategic sourcing. TCE is a theory of firm governance (i.e., who does the work—the firm itself (in-source) or suppliers via contracts (outsource). TCE analysis accounts for every transaction in the sourcing process. "Transaction costs are the costs of running the system and include such ex-ante costs as drafting and negotiating contracts and such ex-post costs monitoring, and enforcing agreements" (Rindfleisch & Heide, 1997, p. 31). Transaction costs include both direct costs (e.g., negotiations, supplier management, and contract administration) and indirect costs (e.g., poor management decisions and costs born out of supplier opportunism). In addition, TCE assumes that decision-makers select alternatives in a state of bounded rationality and act opportunistically (Rindfleisch & Heide, 1997). The first assumption, bounded rationality, builds on the premise that decision-makers' cognitive capability is constrained, which limits their ability to act completely rationally (Simon, 1957). Bounded rationality is caused by risk, uncertainty, incomplete information, and complexity of the decision-making process (Simon, 1972). In bounded rationality, decision-makers intend to make the rational decision, but they are limited by their cognitive abilities. The second

assumption, opportunism, provides that the decision-maker intends to make self-serving decisions regardless of the rationale. Opportunism involves dubious actions such as misleading or false statements, empty promises, and threats to take advantage of a situation (Conner & Prahalad, 1996). Williamson stated, "Opportunism makes provision for self-interest seeking with guile" (1981, p. 554). This statement refers to the harm caused to the other party. Each party does not trust the other due to the threat of opportunism. Therefore, the transaction becomes costly to craft and monitor (i.e., transaction costs) in efforts to seek protection. Once the transaction is too costly, firms will perform the work in house (make vs. buy).

TCE is especially important to DoD purchasing because the DoD outsources the majority of products and services. In the absence of strategic sourcing, the DoD has hundreds of contractors responsible for providing similar products and services. For example, in FY06, the USAF awarded 1,632 furniture contracts to 468 furniture suppliers with a value of $119.1M (HQ AMC, 2009). As a result, the Air Force suffers from fragmented spend. These excess contracts represent unnecessary transaction costs because the requirements could be consolidated into fewer contracts. In addition, contracting with many suppliers increases the likelihood of behavioral uncertainty for performing in accordance with government's expectations and requirements. Behavioral uncertainty causes the government to write detailed contracts and perform extensive monitoring of suppliers to deter supplier opportunism. The FAR prescribes detailed terms and conditions. As a result, buyers are not empowered to craft appropriate contracts and suppliers are not trusted. The detailed terms and conditions require detailed contract administration, particularly adequate manpower to negotiate and administer contracts, thereby increasing transaction costs. Therefore, the addition of another supplier provides a compounding effect on transaction costs. Accordingly, the Air Force's execution of approximately 147,000 contract actions in fiscal year 2010 resulted in huge transaction costs.

2. Agency Theory

One of the oldest and most commonly codified modes of social interaction, the agency relationship, involves two or more parties - the principal and the agent (Ross, 1973). The agent takes action on behalf of, or as a representative of another, known as the principal (Ross, 1973). Arrow (1968) further explained that "the agent has been selected for his specialized knowledge and therefore the principal can never hope completely to check the agent's performance" (p. 538). Consequently, when the principal and agent have conflicting goals or attitudes toward risks and the agent's actions are unverifiable, principal–agent problems arise (Eisenhardt, 1989a).

Agency theory is defined by three assumptions: (1) self-interests are maximized, (2) life is a series of contracts governed by competitive self-interests, and (3) monitoring contracts proves costly and ineffective (Perrow, 1986). Perrow (1986) stated, "contracts *will* be violated because of self-interest, and *can* be violated because of the costs and ineffectiveness of surveillance" (p. 12). Agency theory seeks to explain how principals can minimize contract violations through effective contract choice (Perrow, 1986).

The agency problem centers on selecting the optimal contract with the proper measurement and rewards for the agent's service (Eisenhardt, 1985). The principal has two contractual options to ensure optimal performance: behavior-based contract or outcome-based contract (Eisenhardt, 1985). Behavior-based contracts are used when the principal has complete information about the agent's behaviors (Eisenhardt, 1985). The transparency of the transaction allows both parties to observe the agent's performance (Eisenhardt, 1985). In contrast, an outcome-based contract is more appropriate if the principal is not aware of the agent's behaviors. If the principal wanted to use a behavior-based contract, a surveillance mechanism must be in place (Eisenhardt, 1985). Without a surveillance mechanism to observe behavior, outcome-based contracts can penalize or reward outcomes that are out of the principal's observable control (Eisenhardt, 1985).

Eisenhardt (1989) stated, "Agency theory is most relevant in situations in which contracting problems are difficult" (p. 89). Suppliers act as agents to the government

under contracts. When the suppliers' self-interest seeking behaviors deviate from the government's intent, there is a principal-agent problem. This leads to a clash of cultures as described by Cohen and Eimicke (2008).

> A government agency contracting for goods or services is sold these items by vendors who may attempt to demonstrate their belief in the agency's mission. While that belief may be sincere, the underlying factor that motivates the firm's behavior is not adherence to the agency's mission but increased market share, profit, and return on equity. (p. 18)

Strategic sourcing mitigates the principal-agent problem and the clash of cultures through the deliberate alignment of the government's goals with the supplier's goals. This mitigates the chances that suppliers will engage in self-seeking behaviors that deviate from the government's requirements. In traditional sourcing, the government usually seeks at least three sources. In strategic sourcing, the government seeks, not just any three sources, but the best-in-class suppliers whose goals best align with those of the government. Therefore, agency theory provides useful insight into buyer and supplier goal and risk assumption conflicts arising during and after contract award. Using the best-in-class suppliers as well as fewer suppliers and contracts should reduce the principle-agent problem. As a result, agency theory can enhance a manager's awareness when he or she is selecting the most effective contract to incentivize the agent.

3. Institutional Theory

Institutions are created for a common purpose. For example, whether to protect nations or to promote humane treatment of animals, institutions set out on a clear path toward their goals. Along the way, institutions receive pressure from both internal and external forces that guide the direction they take. Many scholars study institutions to gain greater insight into how forces shape organizations. A prominent theory that provides understanding of the institution is institutional theory. Institutional theory "suggests that the firm managers look to industry norms, firm traditions, management fads, and so on to formulate compensation policy" (Eisenhardt, 1988, p. 489).

Furthermore, "institutional theory explains how an organization's environment, through regulative, normative and cognitive mechanisms, institutionalizes and legitimizes strategies" (Shook et al., 2009, p. 1).

Thus, understanding the behavioral patterns through the "institutionalization process" is critical for institutionalizing strategic sourcing strategy in the DoD. Tolbert and Zucker (1996) provided a framework for the institutional process. As shown in Figure 2, Tolbert and Zucker (1996) argued that the components of the institutionalization process include innovation, habitualization, objectification, and sedimentation. Innovation is the driving force for change in an institution. Innovation is what causes an institution to revisit its current policies and strategies. The forces that push innovation within an institution are technological change, legislation, and market forces (Tolbert & Zucker, 1996). For strategic sourcing, legislation and market forces are the main driving force pushing this innovation. For example, the budget is decreasing due to decreased tax revenue (i.e., market forces). In addition, previous legislation created a federal government whose costs are unsustainable (e.g., entitlements). Before innovation can begin the institutionalization process, it must be put into a structure that can inhabit the institution.

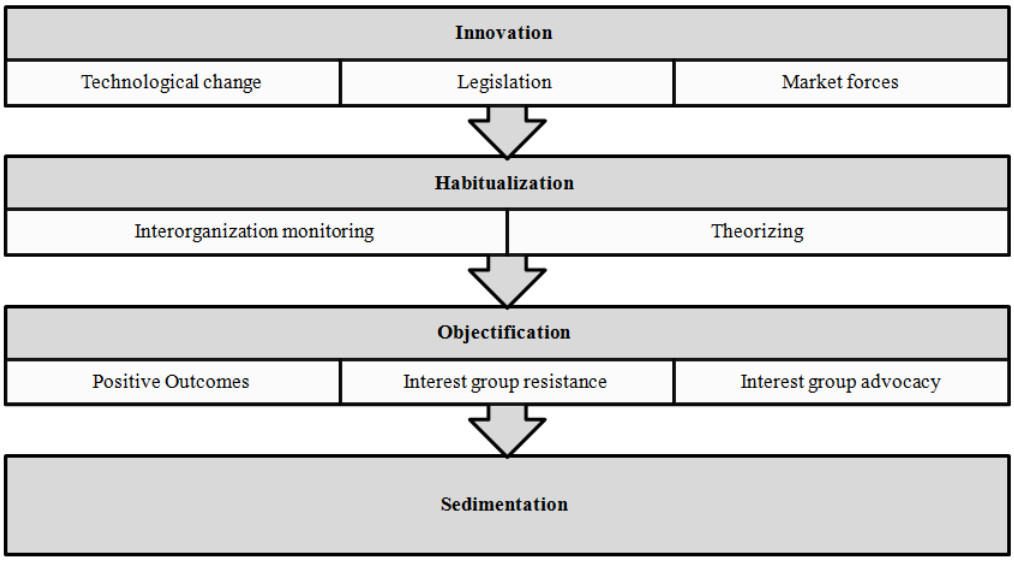


Figure 2. Component Process of Institutionalization
(From: Tolbert & Zucker, 1996, p. 182)

Next, the innovation must be internalized and legitimized. Tolbert and Zucker (1996) stated that habitualization "involves the generation of new structural arrangements in response to a specific organizational problem or set of problems, and the formalization of such arrangements in the policies and procedures" (p. 181). In the habitualization stage, the innovation is compartmented and has not been fully adopted by the institution. Therefore, there is little interaction with the non-adopters within the institution. It is not until the innovation has widespread consensus among decision-makers that it moves to permanent status within the institution.

Objectification, as stated by Tolbert and Zucker (1996), "involves the development of some degree of social consensus among decision-makers concerning the value of a structure, and the increasing adoption by organizations on the basis of that consensus" (p. 182). During objectification, key stakeholders, influencers, and competitors provide inputs into the innovation's adoptions. Groups within and outside the organization will oppose or advocate the adoption of the innovation. In addition, previous inventions are seen as more cost-effective options than the current innovation. However, the trajectory toward full institutionalization is well defined. Strategic sourcing, while we argue that it still resides within the habitualization phase for the DoD as a whole, seemingly began the process of objectification within the contracting community. The DoD is currently benchmarking and looking at past sourcing initiatives as ways to improve acquisition efficiency. Although strategic sourcing continues a trajectory toward sedimentation within the DoD, it still might not be widely adopted.

Sedimentation is the final stage in the institutionalization process. Sedimentation of the innovation is essential for an innovative process to be retained long-term within an organization. The generations that come after an innovation has become fully institutionalized will continue to implement it. However, even after sedimentation, if the innovation lacks results, its validity will erode (Tolbert & Zucker, 1996, p. 184). If strategic sourcing becomes institutionalized, it will be imperative that it produce savings that meet an organization's expectations or else it will fade like other management and process fads (e.g., total quality management in the 1990s).

4. Social Exchange Theory

Social exchange theory (SET) emerged from the fields of sociology and social psychology to explain the rewards of social interactions. The basic concept of social exchange originates as early as the 1920s (Cropanzano & Mitchell, 2005). However, it was not until the 1960s that concerted research focused on social exchange from both psychology and technical economic analysis viewpoints (Emerson, 1976). Four individuals—George Homans, John Thibaut, Harold Kelly, and Peter Blau—were responsible for the emergence of SET (Emerson, 1976). Emerson (1976) argued that relationships are created and maintained by performing cost-benefit analyses of alternative outcomes. Furthermore, Emerson (1976) argued that SET provides "the conceptual tools needed … to deal with exactly those topics that economics theory has trouble with: market imperfection" (p. 359). The main motivation for interaction between partners (individuals or firms) is to receive a reward or avoid punishment (Griffith, Harvey, & Lusch, 2006).

SET attributes actions among participants to their perceived proportionality of the value (social or activity) exchange. If one partner emits behavior that is not equally valued by the other participant, the other participant reduces his or her own value production to a perceived equilibrium. In addition, if the originator values the exchange more than the other participant, the originator must supplement his or her value production to create a sense of proportionality between participants (Homans, 1958). SET suggests that relationships that evolve over time have "trust, loyalty, and commitment" (Cropanzano & Mitchell, 2005, p. 875). Relationships with mutual trust, loyalty, and commitment foster an open communication environment and increase the likelihood of proportional value exchange. This is important for effective implementation of strategic sourcing initiatives. A positive buyer–supplier relationship is critical for strategic sourcing initiatives to be effective. As described in the previous section about TCE, reducing the frequency of transactions reduces costs.

Therefore, SET can provide the insight needed to improve the long-term relationship exchange between the DoD and its contractors. For the types of spend that are conducive to relational exchange (e.g., *strategic*), SET tells of the social norms that

should be nurtured: trust, commitment, flexibility, goal congruence, harmonization of conflict, mutuality, cooperation, etc. These social norms make the transaction more efficient. If a supplier can be trusted to do what it is supposed to do (or what it knows the buyer needs it to do), then the buyer does not have to spend hours crafting the perfect contract, and does not have to spend hours and dedicate excessive people to oversee performance (i.e., inspection). This lowers transaction costs. Historically, the government is not very good at relational exchange. In fact, although the USAF strategic sourcing process in the AFFARS IG shows supplier relationship management, nowhere is this defined or explained. Nobody knows how to do it, what to expect from doing it, or how to measure it.

Interestingly, what you see is that TCE cannot fully explain transactions. For example, what if firms do not use a contract? What if the full set of expectations and obligations is consummated in a simple hand shake? TCE theory does not account for such a phenomenon. Thus, it is not a complete theory. It addresses the transaction from an economic perspective, but omits the social aspects. Thus, relational exchange fills the gap as an alternative form of governance (other than a contract). This alternative can be more efficient since transaction costs can be lowered. However, relationships take time and effort to build and maintain. As a result, supplier optimization becomes key. A buying organization cannot expect to have the resources to build a relationship with thousands of suppliers. Therefore, a best practice that emerged in industry is to reduce the number of suppliers first (i.e., supplier rationalization). Then, develop relational exchange with the remaining few (for "strategic" spend).

5. Theory of Production Competence

The theory of production competence (TPC) was first introduced by Cleveland, Schroeder, and Anderson (1989). TPC is "a measure of the combined effects of a manufacturer's strengths and weaknesses in certain key performance areas" (Cleveland et al., 1989, p. 657) that captures the firm's ability to effectively carry out its business strategy. The following nine areas were identified as key areas that mean the difference between business success and failure: adaptive manufacturing, cost-effectiveness of

labor, delivery performance, logistics, production economies of scale, process technology, quality performance, throughput and lead-time, and vertical integration (Cleveland et al., 1989). The successful implementation of these nine areas is reliant on a successful procurement and supply strategy. The importance of procurement to production is evident because more than half of the total production cost is related to procurement cost (Zsidisin & Ellram, 2001). Procurement and supply competence entails "acquiring and managing supply chain resources to achieve the highest quality of supply at the lowest cost of ownership possible" (Cox, 2001, p. 11). Thus, to acquire inputs at a lower cost of ownership, production competence must include procurement competence to ensure suppliers meet both quality and timeliness objectives. "Simply put, 'poor' purchasing decisions might lead to inferior corporate performance, and 'good' purchasing decisions might lead to superior corporate performance" (Carter, J. R., & Narasimhan, 1996, p. 21).

Depending on business strategy, two firms with the same strengths and weaknesses may result in one being successful and the other failing. Therefore, production competence is determined by both production process and business strategy (Cleveland et al., 1989). Although TPC can explain production's contribution to the overall performance, TPC does not consider the external competitive environment (Vickery, 1991). However, it can be argued that the external environment is accounted for in the firm's business strategy. Vickery (1991) states, "It is anticipated that firms whose strategies are matched with their competitive environments and whose manufacturing units are strongly supportive of their business strategies will outperform firms that lack this combination of attributes (pp. 642–643). Hence, it is imperative that the firm's business strategy include a robust production, procurement, and supply strategy to ensure adequate cost and production efficiencies. TPC provides a good framework to identify whether or not the Air Force has the internal ability to carry out strategic sourcing effectively.

C. STRATEGIC SOURCING

Strategy is not a new concept. From the earliest battles, effective battlefield strategy allowed armies to gain a competitive advantage over adversaries. This concept is no different for a firm. The marketplace is a constant battlefield where firms fight for finite resources (capital, talent, equipment, property, etc.) to achieve better outcomes (customers and profits). Barney and Ketchen (2001) support this resource-based view of the firm. The objective to gain a competitive advantage over adversaries (competitors) is central to a firm's long-term sustainment in the marketplace (Porter, 1980). Competition creates a willingness within a firm to seek out new sources of competitive advantage. The purchasing function recently evolved to become such a recognized source of competitive advantage for the firm.

1. Purchasing's Strategic Evolution

For centuries, the purchasing function provided a transaction-based role for meeting a firm's strategic objectives. The purchasing function was not seen by a firm as a source of competitive advantage (Carter, J. R., & Narasimhan, 1996). Its function was solely to source goods and services necessary for operations. "Throughout the 1970s, purchasing's role in the company was viewed by many as much more administrative than strategic" (Carter, J. R., & Narasimhan, 1996, p. 20).

Over time, the fundamental idea that purchasing was simply an administrative function began to change. According to Rajagopal and Bernard (1993), "purchasing strategy first achieved a general level of recognition and interest in the mid-1970s" (p. 13). This was in large part due to increased outsourcing. "Today manufacturing focus means learning how not to make things—how not to make parts that divert a company from cultivating its skills, parts its suppliers could make more efficiently" (Venkatesan, 1992, p. 98). "Outsourcing is becoming so sophisticated that even core functions like engineering, R&D, manufacturing, and marketing can—and often should—be moved outside" (Gottfredson, Puryear, & Phillips, 2005, p. 1).

In the mid-1980s, firms changed their focus on an asset's effect on the balance sheet to "its ability to control and make the most of critical capabilities" (Gottfredson et

al., 2005, p. 132). In 1991, Cammish and Keough reported that "most corporations spend between 50 and 80 percent of sales on outside goods and services" (p. 22). However, firms began to reevaluate the sources of competitive advantage. According to Barney (1991), "a firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy" (p. 102).

Competitive advantage is obtained either through low-cost leadership or differentiation (Porter, 1980). Firms have long evaluated all parts of their production process to look for potential cost savings. As previously identified, with such a large percentage of goods and services being outsourced, some firms have subsequently increased their bargaining power with suppliers. These firms use this power to gain a competitive advantage over rival firms. According to Porter (1980), the buyer's power is enhanced "if the products purchased from the industry represent a significant fraction of total purchases" (p. 39). Leveraging buying power has a direct impact on profit. Unlike sales, every dollar saved through purchasing more efficiently is a dollar that goes directly to profit.

Strategic sourcing also provides non-fiduciary value creation. Long-term orientation, open lines of communication between firms and suppliers, and close relationships with a few suppliers result in the increased long-run effectiveness of the organization (Chen, Pauraj, & Lado, 2004). The improvements go beyond the price discounts due to economies of scale (volume buying). Improvements are also seen in customer wait time. For example, the Warner-Robins Air Logistics Center (ALC) saw decreases in the number of days a commodity remained in the shop, reductions in administrative lead time (ALT), and reductions in production lead time (PLT) (U.S. DoD. 2007).

Ellram and Carr (1994) performed a systematic literature review of purchasing strategy articles spanning 30 years. Ellram and Carr (1994) categorized the articles into three distinct concerns: (1) the key strategic issues and options that confront the purchasing function, (2) the integration of the purchasing function into corporate strategy,

and (3) the times when purchasing is considered strategic. In addition, Ellram and Carr (1994) identified five areas as key strategic issues that confront the purchasing function. The five areas are "the make or buy decision, supplier technology, type of supplier relationship desired, external market forces, and how purchasing can support the firm's competitive strategy" (Ellram & Carr, 1994, pp. 16–17). In reviewing relevant literature in their article, Ellram and Carr revealed that the second concern, integration of the purchasing function into corporate strategy, is necessary in the current business environment. Ellram and Carr (1994) stated,

> The movement toward global sourcing, rapid changes in technology, and increased competition requires purchasing to assume more responsibility in the planning and implementation of strategies to support corporate strategy. Suppliers play a critical role in supporting a firm's competitive strategy, whether it be cost leadership, differentiation, or mixed strategy. The contributions of suppliers cannot be realized unless purchasing, the key interface, is a full participant in corporate planning and strategy formation. (p. 17)

Additionally, the purchasing functions of continuous supply forecasting, monitoring suppliers, and early involvement with suppliers during product development and the production process positively impact profitability (Ellram & Carr, 1994). Finally, Ellram and Carr (1994) addressed the concern about when purchasing's role transitions from an ancillary role to a strategic role. According to Ellram and Carr (1994), purchasing takes a strategic role within corporate strategy "when [it is] included in strategic planning and implementation at the same level as other functional areas" (p. 17). This only occurs when top management executives recognize, accept, and operationalize purchasing strategy (Ellram & Carr, 1994). Organizations do not change in short periods of time. Change is a long, iterative process. Ellram and Carr (1994) acknowledged that purchasing is no different when they stated that "changing the view of management has been a slow process in most organizations" (p. 17). Slow adoption of a purchasing strategy directly affects an organization's competitive advantage. In the current marketplace, "continued attrition to competitive sourcing will remain necessary just to keep up" (Monczka, Blascovich, Markham, Parker, & Slaight, 2010, p. 7). In today's

austere environment, monetary savings alone will not be enough for a firm to thrive or even survive; additional value must be created in the buyer and supplier relationship (Monczka, Blascovich et al., 2010).

2. Brief History of Strategic Sourcing

After realizing the financial and nonfinancial performance benefits that the purchasing function can provide, strategic purchasing strategies began to gain popularity within firms. Since the 1980s, strategic sourcing has been widely accepted as a positive contribution to a firm's performance (Carter, J. R., & Narasimhan, 1996, p. 21). According to Carr and Smeltzer (1997), strategic sourcing is "the process of planning, implementing, evaluating, and controlling strategies and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the firm's capabilities to achieve its long-term goals" (p. 201). This is not the only definition of strategic sourcing. Osborn and Schoonmaker (2007) provided eleven separate definitions from various publications (p. 9). Osborn and Schoonmaker (2007) recognized that their list is not all-inclusive of all strategic sourcing definitions (p. 8). To this end, we offer DPAP's official definition of strategic sourcing. "Strategic sourcing is the collaborative and structured process of critically analyzing an organization's spending and using this information to make business decisions about acquiring commodities and services more effectively and efficiently" (DPAP, 2011). Strategic sourcing creates value by improving quality, reducing cycle time, or by obtaining "cheaper pricing, more favorable warranties, better terms and conditions, and/or increased realization of socio-economic goals" (Newhart, 2006, p. 26).

Osborn and Schoonmaker (2007) also identified three strategic sourcing processes retrieved from published literature: two provided by the Institute of Management and Administration (IOMA) and one provided by Newhart (2006, p. 10). The IOMA presented a 15-step strategic sourcing process in 2003 and an eight-step process in 2005. In 2006, Newhart presented a three-step process (pp. 27–28). The following three strategic sourcing components were identified by Osborn and Schoonmaker (2007) as

common between the IOMA's and Newhart's three processes: spend analysis, market analysis, and procurement strategy development (p. 11).

A robust spend analysis is vital to strategic sourcing. "Spend analysis provides the necessary foundation for procurement organizations seeking to make better, more informed sourcing decisions" (Aberdeen Group, 2007, p. 4). In 2004, a RAND Corporation report suggested that private firms place a high importance on spend analysis, viewing spend analysis as "very important" or "critical" to the success of their firm (Aberdeen Group, 2002, p. vii). Spend analysis provides information such as the percentage of the total spend per commodity, the number of contracts, top suppliers, the number of suppliers broken down by commodity categories, and so forth. The spend analysis data provides savings opportunities that otherwise go unnoticed. The missed savings opportunities that were identified during spend analysis are between 14–24% of total organizational spend (Aberdeen Group, 2007, p. 4).

Once a spend analysis identifies opportunities for savings, a market analysis must be performed. Market analysis is a systematic review of the supply market that assesses the availability of goods and services in terms of quality and quantity and the strengths of each supplier (Kraljic, 1983, p. 112). Kraljic (1983) identified six criteria to evaluate suppliers during market analysis: suppliers' capacity utilization, suppliers' break-even stability, uniqueness of the suppliers' product, annual volume purchased and expected growth in demand, past variations in capacity utilization of main production units, and potential costs in the event of non-delivery or inadequate quality (pp. 112–113). The information analysts gleaned from market analysis allows companies to develop the appropriate procurement strategy.

Spend and market analyses provide the data needed to make an appropriate procurement strategy. For decades, companies were making procurement strategy with minimal spending or market situation inputs. This caused the strategy to have lackluster performance.

> The reason these efforts often fail to measure expectations, even purely in terms of cost savings, is that most companies continue to make sourcing decisions on a piece-meal basis. They have not put hard numbers against

> the potential value of capability sourcing, and they've been slow to develop a comprehensive sourcing strategy that will keep them competitive in the global economy. (Gottfredson, Puryear, & Phillips, 2005, p. 2)

To determine an appropriate procurement strategy, many firms—including the DoD—have utilized Kraljic's (1983) Purchasing Portfolio Approach with success.

3. Kraljic's Purchasing Portfolio Approach

In 1983, Kraljic introduced a fundamental way to identify and implement purchasing strategies in a firm (p. 110). Kraljic (1983) stated the following:

> A company's supply strategy depends on two factors: (1) the strategic importance of purchasing in terms of the value added by product line, the percentage of raw materials in total costs and their impact on profitability, and so on; and (2) the complexity of the supply market gauged by supply scarcity, pace of technology and/or materials substitution, entry barriers, logistics cost or complexity, and monopoly or oligopoly conditions. (p. 110)

Using Kraljic's (1983) Purchasing Portfolio Approach, shown in Figure 3, "top management and senior purchasing executives can determine the type of supply strategy" (p. 110). The strategy the company uses depends on its strategy to either exploit the firm's purchasing power with key suppliers or to minimize the firm's purchasing risks. Kraljic's (1983) portfolio approach allows companies to discover new purchasing options or to recognize supply vulnerabilities. The procurement focus identified in each management category provides a guide for classifying goods and services into each quadrant.

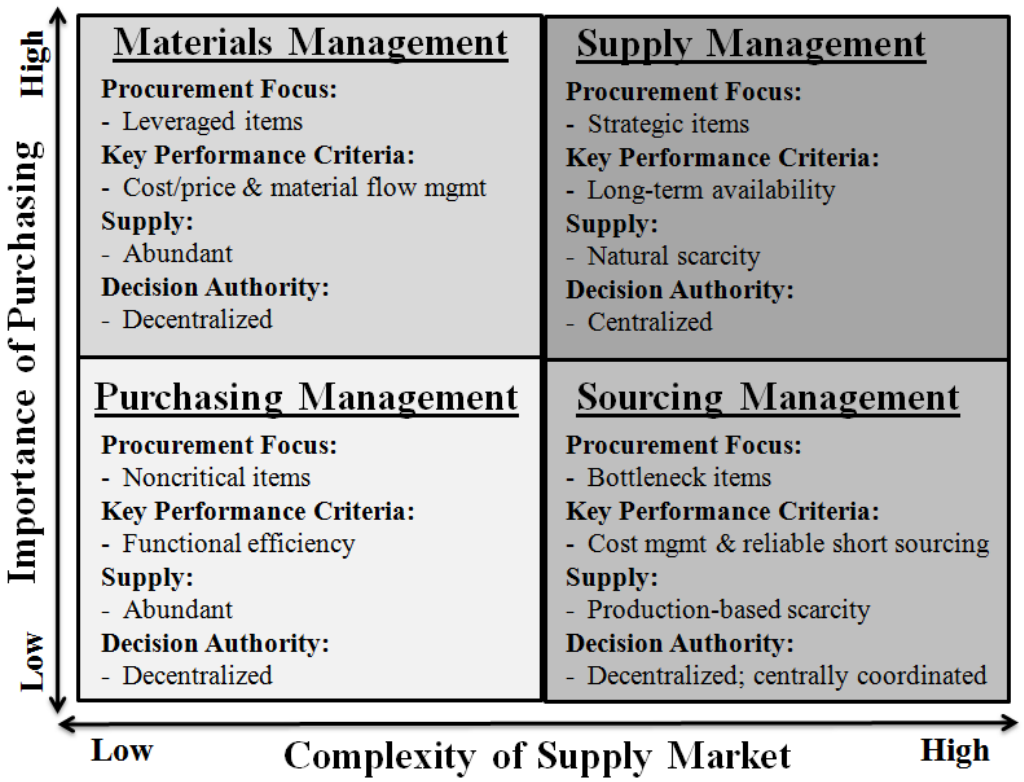


Figure 3. Purchasing Portfolio Approach
(From: Kraljic, 1983, p. 111)

Each one of the procurement focus categories—*noncritical*, *leverage*, *bottleneck*, and *strategic*—requires a unique approach for acquisition. For instance, "*bottleneck* items may require specific market analysis and decision models … while vendor and value analysis, price forecasting models, and decision models may come into play on issues affecting *leverage* materials" (Kraljic, 1983, p. 112). After performing spend and market analyses, companies can decide on an appropriate procurement strategy using Kraljic's approach.

Strategic sourcing is more than just purchasing from suppliers. It requires an investment of time and resources while conducting spend and market analyses to discover potential savings. Additionally, models such as Kraljic's (1983) Purchasing Portfolio Approach should be used to help identify the appropriate procurement strategies for each commodity category. A good strategic sourcing strategy can pay dividends in both private and public organizations. For instance, between 1996 and 2006, Bristol-Myers Squibb saved $1.6 billion of its $10 billion total spend, and the state of Pennsylvania

saved $140 million in 2004 utilizing strategic sourcing (Newhart, 2006, p. 26). The vast cumulative evidence strongly suggests that the DoD could achieve savings because it spends over $400 billion per year on the procurement of goods and services.

4. Available Sourcing Strategies

There is not one supply strategy that leads to successful strategic sourcing. Rather, firms need many strategies to successfully implement strategic purchasing. According to a study by Monczka and Peterson in 2008, there are eight supply strategies that must be implemented and that are critical to reaching strategic sourcing success. These strategies include the following:

- commodity and supply strategy processes;
- strategic cost management;
- total cost of ownership;
- world-class supplier quality;
- global sourcing and supply;
- strategic insourcing and outsourcing;
- supplier assessment, measurement and communications; and
- structuring and maintaining the supply base.

The commodity strategy is a strategic sourcing strategy that focuses individually on specific product or service groups. "The success of commodity strategies is based on maximizing the cost reduction advantages of leveraging combined buying power, … using market experts, … and forming strong relationships with suppliers" (Rendon, 2005, p. 9). Commodity councils are designed to use aggregation of spend as leverage to achieve economies of scale. The aggregation of spend by the firm allows the supplier base to be dramatically reduced, thus saving on transaction costs. However, this is not the only strategy leading to success. Commodity councils exist to apply the appropriate strategy to the spend category. Leveraging volume might be appropriate or strategic cost management may be appropriate (e.g., value analysis). The appropriate strategy depends on where the spend falls within Kraljic's Purchasing Portfolio Approach.

D. DOD ACQUISITION POLICIES AND DIRECTIVES

On May 20, 2005, the U.S. government officially directed all government agencies to identify three areas of spend that were candidates for strategic sourcing. By January 2006, the Office of Federal Procurement Policy (OFPP) directed agencies to report results of strategic sourcing efforts (Johnson, 2005). This memorandum was the first policy letter directing agencies to strategically source goods and services. In this section, we highlight a few of the acquisition policies and directives that apply to strategic sourcing.

One policy that was a result of the OMB's 2005 memo was the Federal Strategic Sourcing Initiative (FSSI). The FFSI is the U.S. government's strategic sourcing solution to the growing cost of goods and services. "FSSI encourages cross-government collaboration and adoption of industry best practices" (General Services Administration [GSA], 2011). The primary goals of FSSI are as follows:

- strategically source across federal agencies;
- establish mechanisms to increase total cost savings, value, and socioeconomic participation;
- collaborate with industry to develop optimal solutions;
- share best practices; and
- create a strategic sourcing community of practice.

The FSSI was created through a partnership between the General Services Administration (GSA) and the Department of Treasury and currently strategically sources three spend categories: wireless telecommunications services, office supplies, and express and ground domestic delivery services (GSA, 2011). The FSSI is significant in that over 20 federal agencies utilize FSSI/GSA contracts.

In addition to the FSSI, the Air Force wrote its own informational guidance (IG) specific to strategic sourcing referred to as *AF Strategic Sourcing and Commodity Council Guide*. The guide is incorporated into the Air Force Federal Acquisition Regulations (AFFARS). The guide provides Air Force buyers with instruction on how to perform strategic sourcing (USAF, 2010).

The DPAP created a DoD-wide strategic sourcing framework, which we show in Figure 4. The framework standardized the strategic sourcing process across the DoD.

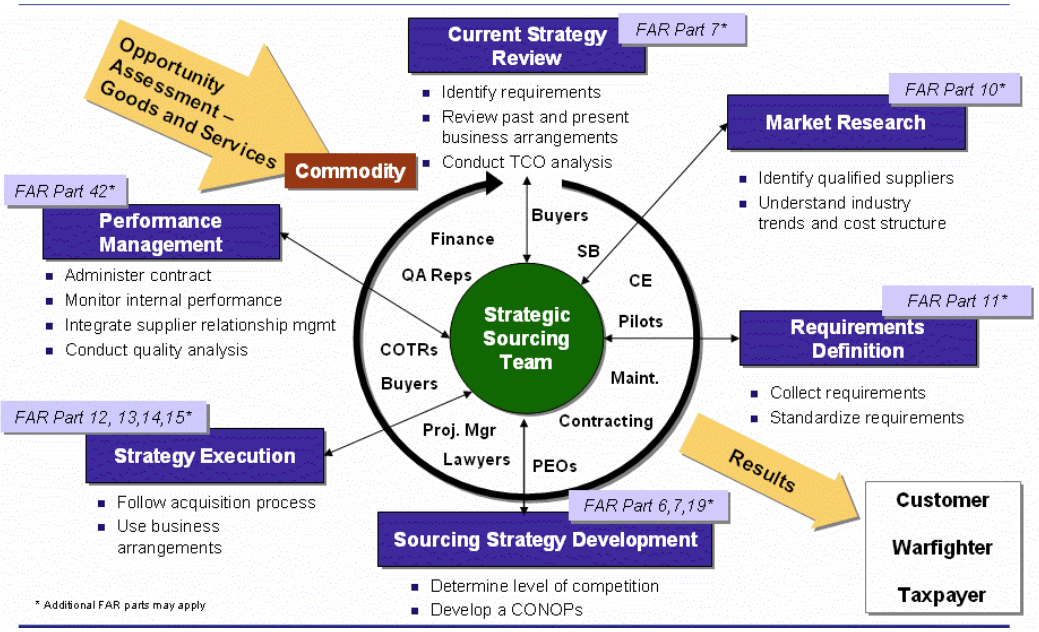


Figure 4. Strategic Sourcing Framework
(From: Office of Strategic Sourcing, 2011)

E. ORGANIZING FOR STRATEGIC SOURCING

The organizational structure is a key ingredient in the successful implementation of strategic sourcing. "The central purpose of structure is to coordinate the work divided in a variety of ways; how that coordination is achieved—by whom and with what—dictates what the organization will look like" (Mintzberg, 1981). In this section, we discuss the organizational structure needed for strategic sourcing.

1. Centralized, Decentralized, and Hybrid Organizational Structures

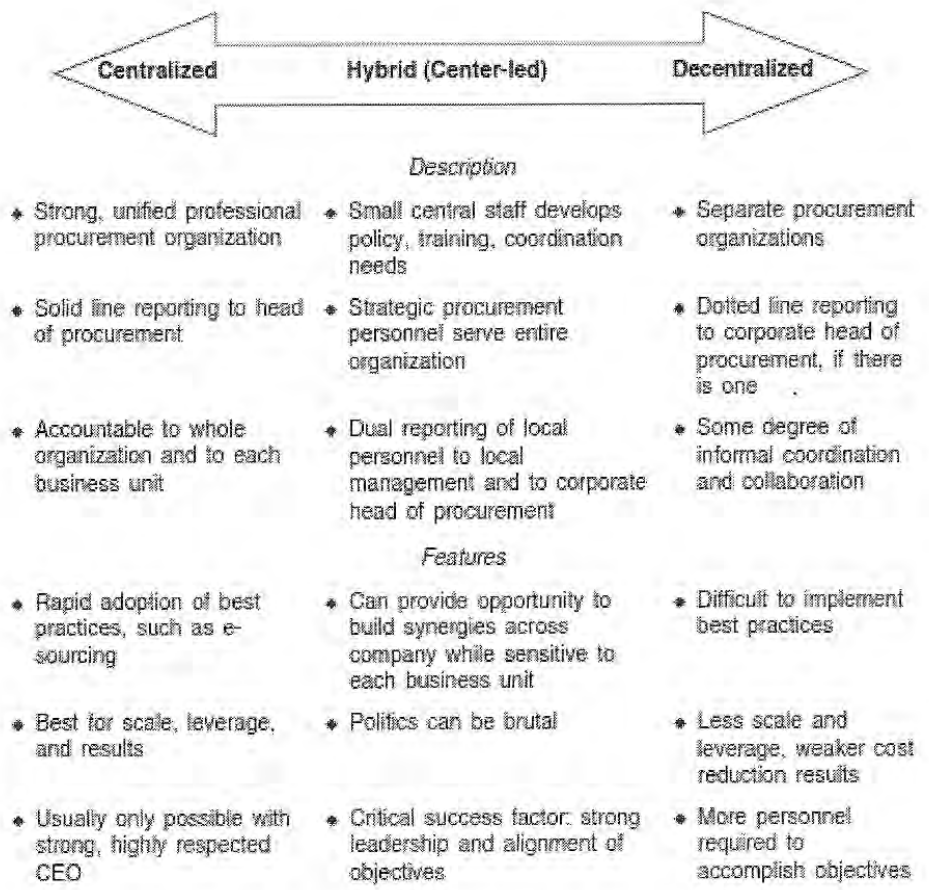
An organization can be structured in a centralized, decentralized, or hybrid structure. An organization is centralized when the majority of decisions are made from the top level and pushed down to the lower levels. On the other hand, a decentralized organization allows lower levels of the organization to provide input and make key organizational decisions without top-level approval. An organization can never be fully centralized or decentralized, but it may have characteristics that lead the organization to

be more centralized or decentralized (Robbins & Coulter, 2007). A hybrid organization is simply an organization that is both centralized and decentralized in its structure. Rudzki et al., summarized the characteristics of a decentralized, centralized, and hybrid structure in Figure 5.

In the case of strategic sourcing, an organization must decide on a centralized, decentralized, or hybrid (center-led) structure. Centralization allows an organization to fully utilize its buying power, but also it creates a more inflexible purchasing environment (Kraljic, 1983). "To find the right balance, companies must carefully consider trade-offs between clout and flexibility" (Kraljic, 1983). In addition, where purchasing falls in the corporate structure will guide an organization to be structured as centralized, decentralized, or a hybrid. Kraljic stated, "The purchasing department's structure should reflect supply-product market affinities and permit staff with specialized competence to take the lead in working out strategies for specific items" (Kraljic, 1983).

Research suggests that there is a negative correlation between business performance and decentralized decisions. (Carter, J. R., & Narasimhan, 1996). As a result, decentralized purchasing structures require centralized corporate oversight for the structure to support the strategy (Carter, J. R., & Narasimhan, 1996). In a study of factors that influence purchasing activities, "centralized purchasing organizations reported consistently higher involvement in major corporate activities (i.e., corporate strategic planning, outsourcing and financial/cash flow planning) compared to those with decentralized structures" (Johnson & Leenders, 1998, p. 14). According to the study, 88% of service and manufacturing firms used a centralized or hybrid structure and only 12% used a decentralized purchasing structure (Johnson & Leenders, 1998).

Figure 5. Characteristics of the Three Most Common Organizational Approaches (From: Rudzki et al., 2006, p. 51)



Traditional USAF purchasing is decentralized. Due to the USAF's global reach, centralized purchasing is impossible. Therefore, the USAF has implemented purchasing via a hybrid (center-led) organizational structure. The commodity council contracts are created at a central location, but a decentralized structure is used for executing buys across the USAF. The use of a hybrid organizational structure is supported through research. Trent illustrated the gradual shift toward centrally coordinated or centrally led purchasing organizational designs (2004). Rudzki et al. devote an entire chapter to a corporate structure led from the center. Rudzki et al. states, "Hybrid: often called "center-led," this approach can capture close to full benefits of a centralized system and

avoid serious disruption of corporate culture" (2005, p. 50). Furthermore, Monczka and Peterson (2008) found that center-led organizations are correlated with unit price reductions.

Some contend that both decentralized and centralized organizational designs can be effective. "What's important is your commitment, strategy, approach, and your entire company's alignment around a few key objectives. Organizations can be an enabler – but there is no definite right or wrong" (Rudzki, Smock, Katzorke, & Stewart, 2006, p. 52). Carter and Narasimhan (1996) suggested that the structure does not seem to matter in the end: "Organizational structure is only important in the degree to which it fosters purchasing strategy formulation, integration, and implementation" (p. 25). This is also supported by Galbraith (2011), who stated that "most design efforts invest far too much time drawing the organizational chart and far too little on processes and rewards" (p. 4). In the end, each organization must decide which structure is best suited to its business environment. No matter which organizational structure is used, the most important factor is that purchasing is linked with corporate strategy. If purchasing is linked with corporate strategy, then the organization can concentrate more on the purchasing strategy, integration, and implementation and less on the purchasing organizational structure.

In 2008, the economic downturn caused procurement leaders in industry to cut costs in an effort to manage against revenue shortfalls (Limberakis, 2011). Budgetary pressures also forced DoD procurement leaders to cut costs in an effort to manage anticipated congressional appropriation reductions (USD[AT&L], 2010). To be successful at linking corporate strategy with purchasing strategy, executive level center-led direction is needed from a senior acquisition official such as a Chief Procurement Officer (CPO) (Limberakis, 2011). In addition, the CPO provides the catalyst for procurement change within an organization (Limberakis, 2011).

There are three main benefits the CPOs brings to an organization: promoting short-term and long-term cost savings, improving acquisition processes, and increasing acquisition expertise (Ardent Partners, 2011). Additionally, the CPO acts as a change agent within the organization.

> When CPOs collaborate with other senior managers to champion goals that cross organizational and product line boundaries, the savings potential not only is greater but also creates an opportunity for purchasers to establish credibility with other business unit. (Hardt, Reinecke, & Spiller, 2007, p. 123)

This is important because an organization's reluctance to follow or adopt recommended processes improvements creates a barrier to promoting the strategic relevance of procurement (Ardent Partners, 2011).

In an effort to fill the CPO void, the Services Acquisition Reform Act of 2003 (SARA) mandated the appointment of a Chief Acquisition Officers (CAO) and Service Procurement Executives (SPE) (2003, § 414). However, SARA exempted the DoD from establishing a CAO or SPE (2003, § 414). Within the Air Force, SAF and CSAF act as the Chief Executive Officer and Chief Operating Officer, respectively. If leadership views the Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management (SAF/AQ) as the CPO, then the two entities are too far disconnected from the MAJCOMS in the organizational structure to efficiently and effectively implement strategic sourcing.

To increased procurement efficiency and effectiveness initiatives (i.e., strategic sourcing), Fryman and Haile (2011) provide their *Center-Led Air Force Procurement Organizational Structure* for the addition of a CPO to the current Air Force organizational structure. As shown in Figure 6, Fryman and Haile recommend the CPO be placed above the MAJCOM level directly under the Air Force Chief of Staff (CSAF) (2011). According to Fryman and Haile (2011),

> The purchasing center would be accountable for generating the savings required by the Air Force [….] The purchasing units would essentially have two bosses. They would be responsible to the MAJCOMs for acquiring the required goods and services and would also be responsible to the purchasing center for meeting savings targets as depicted by the dashed line. The purchasing center would work with the functional directors as equals to ensure the broader organization's savings goals are met. The purchasing center would also have to work with SAF/AQ to make sure the policy guidance matched the organization's savings goals. Out of the relationship with SAF/AQ, the purchasing center would have a special link to the contracting program office and the program executive

offices where they would be held accountable like the purchasing units for meeting the organizations' savings goals. (p. 107)

While Fryman and Haile's *Center-Led Air Force Procurement Organizational Structure* is currently only a recommendation, the addition of the CPO to the Air Force organizational structure fills the procurement leadership position needed to manage and promote acquisition efficiency initiatives throughout the Air Force organization.

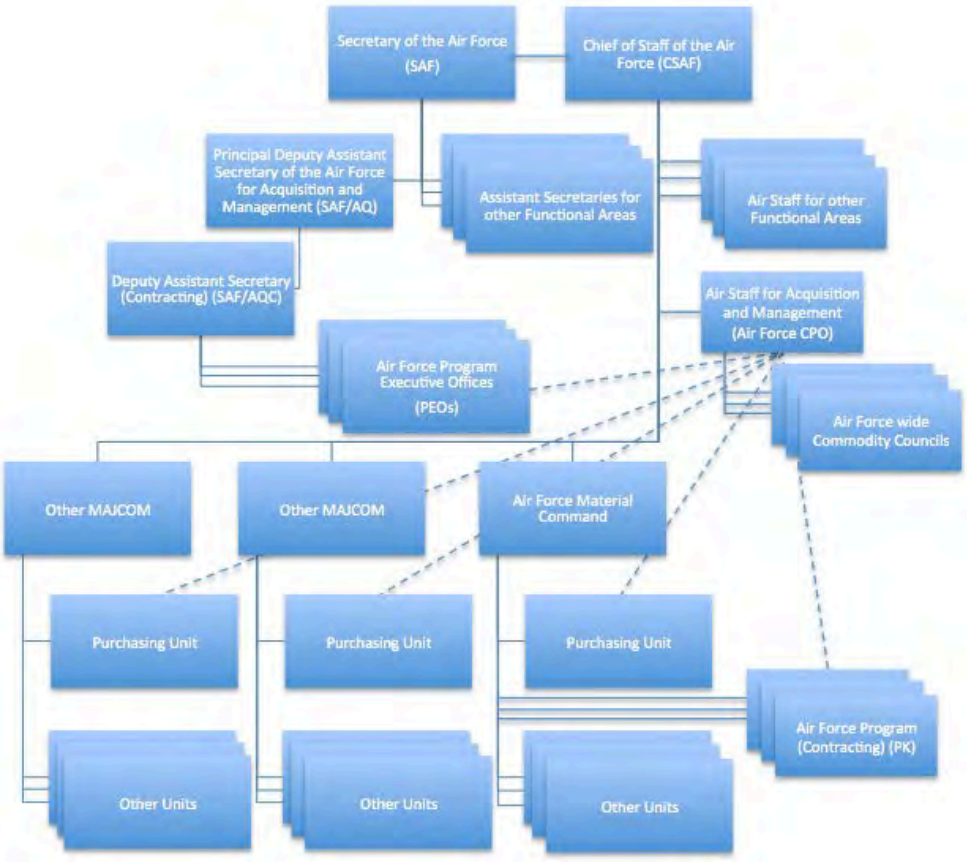


Figure 6. Center-Led Air Force Procurement Organizational Structure (From: Fryman and Haile, 2011, p. 111)

2. Brief History of Commodity Councils

The commodity council concept is an industry best practice in the purchasing and supply chain management arena. "In developing its strategy, the goal of a council is to help maximize the firm's competitive advantage by extracting the maximum value for the commodity from its suppliers" (Ausink, Baldwin, & Paul, 2004). According to the

Secretary of the Air Force (SAF), "the term commodity council … describes a cross-functional group charged with formulating a centralized purchasing strategy and establishing centralized contracts for enterprise wide requirements" (Gillen, 2006, p. 34). As a result, strategic purchasing contracts align with strategic objectives. From there, decentralized business units can execute purchases from the centralized contracts. In essence, the commodity council transforms purchasing from a tactical process to a strategic process (Reese & Pohlman, 2005).

The cross-functional group used by a commodity council differs from a traditional purchasing organization. The cross-functional team is an innovative idea used in strategic purchasing. The commodity council consists of not only purchasing professionals but also full-time subject-matter experts and experts in other business areas such as finance and small business representatives. "Preferably, the council should contain commodity expertise, as well as knowledge in maintenance, engineering, procurement, technology, market analysis, project management, business processes, and acquisition strategy and analysis" (Gillen, 2006). Traditional purchasing teams consist only of purchasing professionals. The new cross-functional structure allows the commodity council to conduct a stakeholder analysis as well as receive stakeholder buy-in.

The commodity council concept emerged in 1994 when purchasing expert Gene Richter was hired by IBM to revamp its purchasing department. Prior to Richter's hiring, IBM's purchasing was decentralized. Each department purchased needed supplies. There was no formal coordination among the department's buyers. As a result, Richter consolidated buying across all departments into commodity councils. This created formal purchasing coordination across all departments. The results were impressive. IBM was able to cut cost as a percentage of spend by over half. In addition, IBM reduced its supplier base by 38% and spent 80% of spend with the top 6% of suppliers (Carbone, 1997).

The commodity council adds value in two ways. First, the commodity council achieves savings through the consolidation of purchases across the entire enterprise. Thus, the commodity council allows an organization to use economies of scale to receive

lower contract prices. Second, the commodity council members become the purchasing experts for a specific area of spend (Reese & Pohlman, 2005). "This is accomplished by team members closely watching industry trends, monitoring supplier performance, and tracking requirements" (Reese & Pohlman, 2005). This allows commodity councils to align spend with strategic objectives and to understand the market forces, the cost drivers, and the suppliers. The commodity council members create value for an organization through their expert market and spend knowledge.

3. Commodity Council Processes

There are four essential activities that the commodity council must conduct. This includes spend analysis, market research, standardization of goods and services, and procurement strategy development. This section discusses these four processes in more detail.

a. Spend Analysis

Strategic sourcing is as much a strategy as it is a process. One of the components leading to a strategic sourcing strategy is a spend analysis. The spend analysis is the first step in the Air Force's Strategic Sourcing Model.

> A first step toward which purchasing and supply management practices to use in any particular purchasing situation is to conduct a spend analysis, or an analysis of expenditures along a number of dimensions, such as type of commodity and supplier, number of contracts and amount of expenditures, and other variables showing how a firm currently spends its money on goods and services. (Moore, Cook, Grammich, & Lindenblatt, 2004, p. vii)

This enables an organization to see how much money it spends on which products and services and from whom they purchase. The results of spend analysis allow the user to see whether the spend is fragmented on the buyer side or supplier side—or both. For example, the spend analysis allows the user to discover whether there are too many contracts per supplier, too many suppliers per commodity, too many buying activities per supplier, and too many suppliers. In addition, spend analysis allows the organization to

determine who buys what and who its top suppliers are by spend. This information is very powerful and is needed to know which sourcing strategy to utilize.

The commodity council conducts a spend analysis twice during the strategic sourcing process. They conduct the first spend analysis as part of the Air Force's opportunity assessment of goods and services. Under this phase, the commodity council collects Air Force spend data from various sources. After data collection, they separate spend data based on percentage of total Air Force spend. The commodity council then breaks the data out by purchases and suppliers (Moore et al., 2004). From there, the council separates data based on market structure, North American Industry Classification System (NAICS), Product Service Code (PSC), Federal Supply Code (FSC), user/buyer, or any other characteristics that allow the spend data to be separated into pools of similar goods and services (USAF, 2010). The results of the first spend analysis enable the Air Force to determine which commodities to group together to be managed by commodity councils. The second spend analysis occurs after SAF/AQC charters the commodity council. The commodity council conducts a spend analysis of the assigned spend falling under its purview in order to develop an appropriate sourcing strategy to gain efficiencies, thus allowing the Air Force to consolidate highly fragmented purchasing activities and suppliers.

Spend analysis has achieved significant cost savings for many companies by reducing fragmented supplier bases. In this section, we highlight a few of the results achieved by various companies that have used spend analyses. Teradyne Semiconductor Test Division cut its $500 million annual spend by about 10% per year (Carbone, 2005). Honeywell reduced its supply base by 40–50% using an automated data collection system. Lucent historically spent 80% of its spend with 20% of its suppliers. The company was able to reduce the supplier base to 3.5%. Rockwell's spend analysis resulted in 5% annual cost savings. Microsoft saved $1 billion in FY05 through the use of spend analysis (Carbone, 1997). These examples highlight the importance of spend analysis in today's budget environments.

b. Standardization of Requirements

Standardization, as defined by the National Committee on Value Analysis (NCVA, 1961), is "the process of establishing agreement [the standard] upon definite quality, design, sizes, procedures, etc." (p. 2). There are two broad categories of standardization. The first standardization category is "things." The standardization of these items can include the color, shape, size, construction, and performance characteristics. These standards are industrial standards. The other standardization category is "processes." Examples of the standardization of processes include accounting practices, operating rules, and maintenance procedures. These standards are managerial standards (NCVA, 1961, p. 2).

For centuries, standardization has been recognized for its ability to drive efficiencies throughout the useful life of the product or service. In 1801, Eli Whitney, after growing frustrated with the musket production process, made huge contributions to the production process by designing musket parts that were interchangeable and by standardizing machines and tool dies to replicate those parts. This allowed him to produce 10,000 muskets in the same amount of time a traditional gunsmith could produce only a few comparable muskets. Thus, by using standardization, Whitney was able to transfer a complex production process into one that could be produced by machines and less-skilled labor (Burt & Dobler, 1996, p. 179).

Henry Ford took Eli Whitney's standardized production process one step further and created an assembly-line process in which he standardized parts in the automobile manufacturing process. Ford's mass production process took "many diverse products, assembled from standardized parts which themselves ha[d] been mass-produced" (Burt & Dobler, 1996, p. 180). Industry's recognition of the benefits of parts standardization led to the formation of such organizations as the American National Standards Institute, International Organization for Standards, American Society for Testing and Materials, American Society for Quality Control, and the Society of Automotive Engineers. As identified by Burt and Dobler (1996), "the use of standards permits a firm to purchase fewer items, in larger quantities, and at lower cost" (p. 181).

Therefore, the standardization of items saves money by lowering purchase prices, reducing process costs, reducing inventory carrying costs, and reducing quality issues (Burt & Dobler, 1996, p. 181).

Organizations recognize the benefits of standardization and its direct impact on profitability. A dollar saved from a standardization initiative during procurement is a dollar that goes directly to profit—that cannot be said from increasing market share through sales. An increase in sales volume does not have the same effect on profitability because of the incremental cost associated with the sale. However, if standardized sales procedures reduce process time, those savings would go directly to profit. But it is the standardization of procedures, not sales, that has a direct effect on profit. It should also be noted that standardization can improve performance (Clavel, Hemsworth, Martinez-Lorente, & Sanchez-Rodriguez, 2006).

c. Market Research

After the spend analysis is complete and a commodity council has been created, the commodity council members must analyze the industry for the specific commodity. The commodity council conducts this analysis through a process known as market research (Nicosia & Moore, 2006). "Market research is the process for gathering and analyzing data on industries, markets, and supplies for the purpose of aligning the needs of an enterprise with the right suppliers on key factors such as quality, delivery, cost, and other key performance indicators" (Nicosia & Moore, 2006, p. 2). The textbook definition of market research, as provided by the Air Force Logistics Management Agency (AFLMA), is a "process used to collect, organize, maintain, analyze, and present data for the purpose of maximizing the capabilities, technology, and competitive force of the marketplace to meet an organization's need for supplies or services" (1997, p. 15). This definition was further advanced by practioners' acknowledgement that market research is a continuously evolving process of achieving best-value solutions to reach a desired state (DoD, 2011).

The market research process consists of four steps: analyze the industry, identify potential suppliers, evaluate potential suppliers, and manage potential suppliers

(Nicosia & Moore, 2006). The first step is the industry analysis. In this step, a firm analyzes the competitiveness of the industry (using Porter's Five Forces Model), industry standards and norms (using industry benchmarks), and total cost of ownership (TCO) (Nicosia & Moore, 2006). In the second step, the firm identifies potential suppliers via various internal and external sources of industry information. In the third step, the firm evaluates the potential suppliers. This step includes a preliminary analysis; a financial analysis; an analysis of performance, costs, and capabilities; and an evaluation conference between the buyer and supplier. The final step is to manage the supply base. In this step the firm monitors and tracks supplier performance and developing potential suppliers (Nicosia & Moore, 2006).

To make an informed acquisition strategy, a firm needs to include information on "key suppliers, available capacity, technology trends, price and cost data trends, technical requirements, environmental and regulatory issues, and any other data that is available" in its market research (Monczka, Handfield, Giunipero, & Patterson, 2009, p. 205). Additionally, Monczka, Handfield et al. (2009) stated that "the whole point of market research is to understand the prevailing market conditions and the ability of current or potential new suppliers to effectively deliver the product or service" (p. 205). This requires the collection of data from multiple information sources, including databases, websites, reports, trade journals, interviews, and so forth to get the most accurate picture of the market environment.

Market research can be classified as either market surveillance or market investigation (AFLMA, 1997). Market surveillance is an ongoing process in which the firm's office of interest continually monitors the marketplace for technology innovation, process improvements, trends, and new suppliers (AFLMA, 1997). The difference between market surveillance and market investigation is that market investigation is driven by a need. Market investigation is used to "determine, with a high degree of confidence, what technology or products can satisfy user requirements" (AFLMA, 1997, p. 28). Market investigation requires information provided from market surveillance along with current supplier information, requests for information, and so forth to develop an effective procurement strategy for the firm.

d. Procurement Strategy Development

Once the members of the commodity council have educated themselves about the market conditions, the total category spend, and the potential solutions to the user's requirement, they must develop a procurement strategy. The results of the market research feed into the procurement strategy development or the sourcing strategy. How well an organization implements supply strategies directly correlates to achieving a successful supply transformation (Monczka & Peterson, 2008).

To increase value for both the end user and the firm, the firm must employ multiple supply (purchasing) strategies. In 2008, the Global Research Center For Strategic Supply Management (formerly known as CAPS Research) issued a detailed report from data collected from 110 firms utilizing 23 supply strategies across 24 industries. This research was designed to help firms as they move toward fully integrated purchasing and supply as part of the corporate strategy. In the report, CAPS researchers Monczka and Petersen (2008) found that firms used "price-focused strategies such as strategic sourcing, low-cost country sourcing, e-reverse auctions, and supplier consolidation to gain scale advantage" (pp. 10–11). However, as a firm continues its multi-year supply transformation, it needs to move away from short-term improvement objectives to long-term, more complex, value-driven objectives (Monczka & Petersen, 2008). These long-term supply strategies require integration and collaboration across functional areas. To help with this transformation, critical supply strategies need to be identified, their respective importance to the firm and implementation phases identified, and a desired goal (end-state) defined by the firm (Monczka & Petersen, 2008). The result of the study found that "the implementation of supply strategies is far lower than their corresponding importance" (Monczka & Petersen, 2008, p. 16). The implementation lag is most likely a result of firms just beginning supply strategy transformation and not having progressed very high up the maturity model. In addition, initial strategies might take more resources and longer time for completion.

The top six supply strategies in order of importance are as follows: (1) human resources development; (2) vision, mission, and the strategic plan; (3) engagement by corporate executives and business unit leaders; (4) commodity and supplier strategy

process; (5) strategic cost management; and (6) measurement and evaluation. Monczka and Petersen (2008) stated, "The top six rated strategies all focus on the initial building blocks of an effective supply function (enablers) and/or are critical to achieving cost improvement" (p. 18). In addition, human resource development's top ranking of importance supports the idea "that acquiring, developing, and retraining the best people will be extremely critical to supply success in a turbulent world" (Monczka & Petersen, 2008, p. 18).

As for the firm's top implementation strategies, the top three supply strategies by importance were the same except for their order: (1) vision, mission, and the strategic plan; (2) engagement by corporate executives and business unit leaders; and (3) human resources development. Again, the least implemented strategies required long-term strategy, vision, and collaboration across business units (Monczka & Petersen, 2008). The CAPS researchers' observation of the participants in the study was that "the least implemented strategies require the longest view and generally require integration across functions and cross-functional collaboration" (Monczka & Petersen, 2008, p. 20). However, the least implemented strategies may offer the greatest contribution to long-term value creation. These include innovation and accelerated change management; e-sourcing and supply; supplier assessment, measurement, and communication; standardization of systems, components and processes versus creation of unique designs and specifications; and global sourcing and supply (Monczka & Petersen, 2008).

For a firm to integrate purchasing (supply management) strategies into its overall strategy, the firm must establish purchasing strategies that have the greatest impact on its financial and market performance (Monczka, Blascovich et al., 2010). CAPS researchers (Monczka, Blascovich et al., 2010) provided a two-stage screening approach to delineate the purchasing strategies with the greatest impact on an organization's objectives from all other purchasing strategies. In the first stage, the firm identifies those strategies that "impact product sales, return on investment, profitability and/or significant problem resolution" (Monczka, Blascovich et al., 2010, p. 31). The second stage is more granular than the first. Here, the firm looks at not only which purchasing strategies have the largest impact on the phase 1 criteria, but also the

likelihood of implementation. As discussed earlier, this changes as the firm progresses through the maturity model. A purchasing strategy today might not be as effective as a purchasing strategy a month from now and vice versa. Overall, purchasing strategy must have a holistic approach to improving the corporate strategy and be supported by top-level executives (Monczka, Blascovich et al., 2010)

In addition, Nicosia and Moore (2006) identify "four basic elements of a sourcing strategy: the buying policy, the number of sources, the type of source, and the supplier relationship" (p. 11). These four factors directly contribute to Kraljic's (1983) purchasing model to determine the optimal procurement strategy, which is based on the value of the commodity classified as the strategic and critical importance to the mission and the complexity of the supply market and risk.

As we discussed previously, Kraljic's (1983) Purchasing Portfolio Approach allows a firm to distinguish what type of strategy it should utilize for a respective product or service. If the firm categorized the solution as routine (non-critical), the procurement strategy should focus on the efficiency of the transaction (e.g., automation) and on price. However, if the item falls into the critical (strategic) or bottleneck categories, the procurement strategy should focus on supplier integration to maximize overall supplier effectiveness. "By effectively classifying the goods and services being purchased into one of these categories, those responsible for proposing a strategy are able to comprehend the strategic importance of the item to the business" (Monczka, Handfield et al., 2009, p. 212). After the portfolio analysis is finished, an evaluation of suppliers must take place to ensure that they can support the procurement strategy and that there will be adequate competition. However, barriers to certain procurement strategies exist that may create additional obstacles for the firm.

F. BARRIERS TO STRATEGIC SOURCING

1. DoD Socioeconomic Goals

Supply base rationalization is a key aspect of strategic sourcing implementation. Supply base rationalization involves obtaining the appropriate amount of suppliers to achieve lower prices through leveraged volume, standardized service, and lower

transaction management costs (Duffy, 2005). However, supply base rationalization is in direct conflict with the U.S. government's socioeconomic policies. The U.S. government strives to maximize social responsibility in the economic environment. To maximize social responsibility, FAR subpart 19.201 states,

> It is the policy of the Government to provide maximum practicable opportunities in its acquisitions to small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. Such concerns must also have the maximum practicable opportunity to participate as subcontractors in the contracts awarded by any executive agency, consistent with efficient contract performance. (2011)

In addition, the FAR attempts to balance acquisition efficiency (fair and reasonable price) with socioeconomic policy. FAR subpart 1.102(2)(d) states, "the System must support the attainment of public policy goals adopted by the Congress and the President. In attaining these goals, and in its overall operations, the process shall ensure the efficient use of public resources" (2011). This provides a difficult challenge for government organizations. Socioeconomic considerations provide a level of complexity to DoD strategic sourcing initiatives that is unlike the level found in private-sector sourcing. Because the government is concerned with the opportunities for small businesses, sourcing strategies must include small business considerations. However, socioeconomic policies can create long-term relationship problems (i.e., a small business outgrows its respective small business designation, a HUBZone has to relocate to a different region, or an 8a supplier graduates from the program).

Consolidation and bundling are also issues when implementing strategic sourcing within government. Bundling of requirements can provide substantial benefits to the government. However, due to the increase in scope and volume of the requirement, there is a potential that the bundled requirement will adversely impact small businesses' ability to compete. This is primarily due to small businesses' inability to provide a competitive bid because the amount of resources needed to perform is substantially larger than a small business' capacity to perform. FAR 7.107(b) states that bundling is considered to provide a substantial benefit if it saves either 10% of the estimate contract or order value

(including options) if the value is $94 million or less or 5% of the estimated contract or order value (including options) of $9.4 million, whichever is greater, if the value exceeds $94 million. In addition, FAR 7.104(d)(1) states that "if the strategy involves substantial bundling, the small business specialist shall assist in identifying alternative strategies that would reduce or minimize the scope of the bundling" (2011). The government's effort to find a balance between acquisition efficiency and socioeconomic policy requires the organization to think of innovative ways to implement strategic sourcing initiatives while promoting socioeconomic policies. This will require a shift in organizational culture.

2. Organizational Culture

An organization's culture has been taught and validated over time. Edgar Schein (1984) stated that organizational culture is

> the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p. 3)

Through the passage of time, an organization molds a complex set of values, beliefs, assumptions, and symbols for the premise on which the organization conducts business both internally and externally (Barney, 1986). Accordingly, the attributes of a culture shape strategy because they "are direct manifestations of cultural assumptions about what business a firm is in and how it conducts that business" (Barney, 1986, p. 657).

Schein (1984) stated that there are three fundamental levels in which a group manifests itself: observable artifacts, values, and basic assumptions. An organization's artifacts can be seen and felt. These include things such as physical layout, social interactions, dress code, annual reports, products, and mission statements. However, while artifacts are easy to detect, they can be hard to decipher. To the external individual, the artifact's physical presence does not provide any indication of how the internal culture will react to such artifacts (Barney, 1991). Therefore, the external individual concludes incorrect inferences about the organization.

To further understand the culture of an organization, one can study the values that govern behavior. Values can be thought of as "internalized normative beliefs that can guide behavior" (O'Reilly, Chatman, & Caldwell, 1991, p. 7). Values are hard to observe directly. The interested party infers values by interviewing key members of the organization or by analyzing the content of artifacts (Schein, 1984). However, to really understand the culture, one must "delve into the underlying assumptions, which are typically unconscious but which actually determine how group members perceive, think, and feel" (Schein, 1984, p. 3). By delving deeper to understand the assumptions of the organization, one can better understand how cultures can seem to be ambiguous or even self-contradictory. Assumptions are a powerful source for understanding culture because they are less debatable (Schein, 1984). They provide a second-nature response within the organization, and to go against that response is unthinkable.

Researchers agree that organizational culture is a key factor in determining how well an individual fits into the organization (O'Reilly et al., 1991). The organizational culture attracts and retains individuals who share its values. In addition, the new entrants are further indoctrinated with artifacts and symbols; those who do not fit leave the organization (O'Reilly et al., 1991). The culture creates generations of groupthink within the organization. Therefore, an organization that is complacent stays complacent and an organization that is innovative continues to innovate. Schein (1990) offered three distinct stages in an organization's cultural maturity: the young-founder stage, midlife stage, and maturity stage. The young-founder stage uses culture as a source of identity and as a way to hold the organization together. Culture changes during this stage of development involve clarification, articulation, and elaboration (Schein, 1990). During the midlife stage, culture still can be managed and changed. During this stage, functional, geographic, or other groups may create their own respective culture within the organization. Conflicts may arise because each group's culture is blended into one homogeneous organizational culture. Finally, organizations establish a mature culture that defines the essence of who they are as a firm. This is the current state of the DoD. Schein (1984) provided a synopsis of this stage when he stated the following:

> Organizations that have reached a stage of maturity or decline resulting from mature markets and products or from excessive internal stability and products or from excessive internal stability and comfort that prevents innovation may need to change parts of their culture, provided they can obtain the necessary self-insight. Such managed change will always be a painful process and will elicit strong resistance. Moreover, change may not even be possible without replacing the large numbers of people who wish to hold on to all of the original culture. (p. 14)

To make effective purchasing strategy changes within the DoD, Schein (1990) suggested that a wide variety of tactics from outright coercion at one end of the spectrum to subtle seduction through the introduction of new technologies at the opposing end of the spectrum. What is certain is that a mature organizational culture creates a strong barrier to change.

3. Conflicting Government Objectives

To promote savings in the public sector, managers must be motivated to reduce their budgets. At the disdain of the taxpayer, not-for-profit managers (NPMs) promote budget enlargement to increase their respective power and control. Budget maximization theory and the bureau-shaping model provide competing explanations of NPMs' opportunistic behavior (Hawkins, Gravier, & Powley, 2011).

a. Budget Maximization Theory

Budget maximization theory is an effort to understand bureaucracies' tendencies to be inefficient. Budget maximization theory, following the utility maximization model, suggests that self-interested bureaus seek to have their total budget increased to gain greater power, higher salaries, and increased stature (Hawkins et al., 2011). The argument is that bureaus act like monopolies in that they can capitalize on consumer surplus. The difference is that monopolies reap the consumer surplus as profits while a bureau retards efficiency to maximize its respective budget allocation. William Niskanen (1968) illustrated this tendency in his budget maximization model. Niskanen (1968) defined his model as having two characteristics:

> (1) Bureaucrats maximize the total budget of their bureau, given demand and cost conditions, subject to the constraint that the budget must be equal

> to or greater than the minimum total costs at the equilibrium output. (2) Bureaus exchange a specific output (or combination of outputs) for a specific budget. (p. 293)

For the DoD, the second characteristic of the model is important to conceptualize. Instead of an itemized budget, the bureaus appropriate their budgets as a whole. Brenton and Wintrobe (1975) asserted that the "bilateral monopoly framework therefore can easily obscure the fact that the bargaining power of a bureau depends on its ability to distort or conceal information from the sponsor" (p. 199). For the DoD, this point is evident in its inability to provide its sponsor (Congress) a certified financial report.

However, budget maximization theory has some points of contention. One point of contention is whether budget-maximizing officials have enough power to convince a majority Congress of their legitimacy. Patrick Dunleavy (1986) addressed this issue by stating that "in the U.S. Congress, legislators on committees come from opposing parties, their party ties are … of low salience, [therefore] co-coordinating institutions form budget-setting within Congress are still relatively weak" (p. 17). In simple terms, what is important for one bureau's sponsor is not necessarily important for another bureau's sponsor. Thus, budget-maximizing officials seek the path of least resistance, free-riding on larger legislation (Dunleavy, 1986, p. 19). DoD departments received substantial funding increases in recent years due to overseas contingency operations (Belasco, 2011). These appropriation increases created an avenue for free-riding. Once appropriated, the bureau can shield its budget from scrutiny, as described earlier.

b. Bureau-Shaping Model

As discussed previously, budget-maximization theory suggests that self-interested bureaus seek to have their total budget increased to gain greater power, higher salaries, and increased stature. An alternative approach to understanding bureaucratic institutions is the bureau-shaping model. The bureau-shaping model of bureaucracy describes how "self-interested officials are primarily concerned to maximize their agencies' core budgets, equivalent to running cost" (Dunleavy, 1989, p. 249). Thus, the

bureau-shaping model description of the self-interested official is linked to agency theory. Additionally, Hawkins et al. (2011) stated,

> bureau-shaping predicts other managerially desired outcomes such as reducing personal risk and increasing access to centers of power in ways that do not unduly increase the scope of the problems under their responsibility. (p. 4)

NPMs internalize a sense of ownership in their bureau (or their perceived kingdom) and enjoy professional enhancement in controlling change (Barberis, 1998). Using this approach, bureaus are more focused on maximizing core budgets so that they can maximize utility. Marsh, Smith, and Richards (2000) stated that "utility maximization is best pursued through bureau-shaping rather than budget maximization" (p. 462). Therefore, organizational change requires the implementation of successful business process reengineering and change management initiatives.

G. BUSINESS PROCESS REENGINEERING AND CHANGE MANAGEMENT

The concept of business process reengineering (BPR) was first introduced by Thomas Davenport and James Short (1990) and Michael Hammer (1990) when touting the benefits of new information technology in business. Hammer (1990) stated that BPR,

> strives to break away from the old rules about how we organize and conduct business. It involves recognizing and rejecting some of them and then finding imaginative new ways to accomplish work. … Only then can we hope to achieve quantum leaps in performance. (pp. 104–105)

Michael Hammer and James Champy (1993) further elaborated that BPR fundamentally rethinks and redesigns the business process to achieve improvements in cost, quality, service, and speed. BPR is a "powerful change approach that can bring about radical improvements in business processes" (Davenport & Stoddard, 1994, p. 121). To make BPR successful, the organization must recognize and break away from outdated rules and assumptions that underscore the old process (Hammer, 1990).

Hammer and Champy (1993) identified four key elements that a firm must have to reengineer. First, they must focus on the fundamentals. This requires the firm to disregard the "what is" state and focus on the "what should be" state (Hammer &

Champy, 1993). Next, the firm must have a radical redesign element. This ensures that changes are not superficial or minor changes to traditional business processes. Third, there must be potential for dramatic results. By reengineering a business process, the firm should see dramatic leaps in performance—not incremental improvements (Hammer & Champy, 1993). Finally, a firm must have business process orientation. Reengineering should revolve around a business process that creates value for the firm.

To succeed at reengineering, Hammer and Champy (1993) stated that a firm should (a) start with the customer and work backwards, (b) move quickly, (c) tolerate risk, (d) accept imperfections along the way, and (e) not stop too soon. Starting with the customer is a firm's first priority since the business processes exist to satisfy the customer's requirement. Next, to thwart internal resistance, a firm must quickly and decisively implement BPR. With quick implementation, there is inherent risk to the firm. However, taking calculated risk provides an environment in which change is not only tolerated but expected. Finally, a firm should not expect perfection at first. Waiting for the 100% solution wastes time and money. Firms should get the BPR into action and adjust the process along the way.

To effectively implement BPR within a firm, it is critical that leaders understand the importance of change management. Grover, Seung, Kettinger, and Teng's (1995) study found that change management is both central and critical to BPR's success (p. 139). Furthermore, Grover et al. (1995) made the following statement:

> Change management is a complex, multifaceted process. … Given the criticality of change management in reengineering revealed by our results, application of … change theories and intervention techniques … should be top priority. (p. 139)

Julien Phillips (1983) outlined three components that are required for organizational change: (1) new strategic vision, (2) new organizational skills, and (3) political support (p. 188). Phillips (1983) further stated that while a new vision is easily obtained, new skills and political support are gained over time. In essence, change does not happen overnight and without the skills and support, change will not be implemented. It is

imperative that leaders understand that quick victories are important to building the momentum needed to sustain long-term change.

H. CHAPTER SUMMARY

In this chapter, we provided a brief review of topics relevant to strategic sourcing. We began by summarizing relevant theories underpinning strategic sourcing. These theories provided the framework for understanding the behavior of the purchasing function in relation to the organization. Next, we explained that purchasing's strategic evolution, including Kraljic's (1983) Purchasing Portfolio Approach and current sourcing strategies, provides a framework for strategic sourcing's implementation into the DoD. Then we discussed DoD acquisition policies and directives¸ organizing for strategic sourcing, and barriers to strategic sourcing. Finally, we concluded the chapter by discussing business process reengineering and change management.

III. METHODOLOGY

A. CHAPTER OVERVIEW

The purpose of this chapter is to describe the method we utilized during this study to investigate the research questions. Specifically, we used a case study methodology because it best addresses questions of why and how (Yin, 2003) and because the number of available commodity council cases in the Air Force is too small to study using stochastic modeling. In this chapter we also discuss how reliability and validity were maintained during the qualitative research process.

B. RESEARCH OBJECTIVES

The DoD continues to implement strategic sourcing initiatives to promote acquisition efficiencies. The DoD utilizes commodity councils to implement strategic sourcing. Commodity council development and implementation is not new to industry. However, the use of commodity councils in the DoD is relatively new. Therefore, in this study, we seek to understand the factors that contributed to the successful development and implementation of the Air Force Furnishings Commodity Council (AFFCC) and its sourcing strategies. The following list identifies the five specific objectives we seek to understand in this study:

1. Understand the factors that contributed to the successful development and implementation of the AFFCC acquisition strategies.
2. Document and analyze the challenges and successes during the AFFCC strategy development and implementation process. Specifically, explore the challenges associated with supporting small business goals while not sacrificing strategic outcomes (i.e., increased savings, reduced transaction costs, and improved supplier performance).
3. Explore the difficulties of creating a commodity council whose spend has no functional ownership or centralized fund allocation—issues not uncommon to indirect spend. Here, the organization processes and organizational structure are examined for lessons learned, best practices, and barriers to efficiency.

4. Document and analyze how the AFFCC computes cost savings in order to determine efficiency. Specifically, explore the challenges associated with establishing accurate, consistent, objective, and verifiable cost savings performance and validation methodology and accountability for the associated savings.
5. Explore the difficulties of controlling utilization of the AFFCC. Here, we examine the accountability process for lessons learned and best practices to maximize AFFCC effectiveness and mitigate "maverick" furnishings spending by organizations.

C. RESEARCH DESIGN

Yin (2003) stated that "'how' and 'why' questions are more explanatory and likely to lead to the use of case studies" (p. 6). In addition, Yin (2003) defined the technical definition of case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13). Therefore, because we seek to answer the "how" and "why" in the development and implementation of the AFFCC sourcing strategies, we used case study methodology in this research.

A case study methodology remains one of the most challenging research designs (Yin, 2003). Currently, the case study method is not easily understood in general, especially by purchasing and logistics managers (Ellram, 1996, p. 93). However, the case study methodology can contribute to the knowledge of an individual, group, organizational, social, political, and other phenomena that cannot be documented through other research methodologies (Yin, 2003, p. 1). "It makes sense to choose cases such as extreme situations and polar types in which the process of interest is 'transparently observable'" (Eisenhardt, 1989b, p. 537). In addition, a case study helps in understanding the dynamics present within a single setting (Eisenhardt, 1989b, p. 534). This makes the AFFCC ideal for employing a case study methodology.

We limit the scope of the study to the objectives identified in the previous section. Without defining those five specific objectives, "an investigator might be tempted to

cover 'everything,' which is impossible to do" (Yin, 2003, p. 23). To ensure that research remained focused to those specific objectives, we only conducted interviews with current and prior AFFCC members, reviewed specific AFFCC-provided and publically available documents, reviewed current DoD and Air Force policy, and directly observed the AFFCC. We focused the case study only on the AFFCC; thus, we did not include other DoD or Air Force commodity councils.

D. DATA COLLECTION/ANALYSIS

Use of an individual source of evidence for conducting a case study lends itself to perception bias (Yin, 2003, p. 97). Therefore, to get a comprehensive collection of evidence about the successful development and implementation of the AFFCC, we used the triangulation method to gather data. The triangulation method allows researchers to gather data by using multiple collection methods (Eisenhardt, 1989b, p. 538). According to Yin (2003),

> the use of multiple sources of evidence in case studies allows an investigator to address a broader range of historical, attitudinal, and behavioral issues. However, the most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry, a process of triangulation. (p. 98)

Thus, triangulation provides a stronger substantiation of constructs and hypotheses (Eisenhardt, 1989b, p. 538). Triangulation of data for this study included a review of relevant published literature, theories, government policies, government directives, government guides, communications, memorandums, contracts, transcriptions of personal interviews with AFFCC team members, and other source documents.

We then drafted the interview questions using relevant published literature, theories, government policies, government directives, and government guides. After we drafted the interview questions, we provided the questions to two academicians and one practitioner to validate their accuracy and relevance. Additionally, the Institutional Review Board reviewed the questions and approved them for use. Furthermore, we distributed the interview questions, along with an abstract containing the objectives of the

study, to the participants prior to the interview. This ensured that any vague questions were identified and clarified prior to the interview. Interview questions are presented in Appendix A.

Interviews are essential sources when gathering evidence for a case study (Yin, 2003, p. 89). We conducted interviews on an individual basis and designed the questions to be open-ended in nature. This allowed respondents a friendly and nonthreatening environment to provide insight into the development and implementation of the AFFCC. We selected each interviewee based solely on their direct involvement with the development and implementation of the AFFCC. Table 2 provides the demographics for each informant. In addition, we chose individual interviews to control the dominance of one respondent during the interview process. We conducted eight interviews at Scott Air Force Base, Illinois, and each interview lasted approximately one hour. We digitally recorded the interviews and transcribed them later. After transcription, we erased all digital recordings. The transcripts from the eight interviews became the primary source of data for analysis.

Table 2. AFFCC Informant Demographics

Informant	Functional Area	Acquisition Exp. (Yrs)	Strategic Sourcing Exp. (Yrs)	Formal Strategic Sourcing Edu.
A*[1]	Contracting	5-10	0	Yes
B	Small Business	not applicable	not applicable	No
C	Contracting	15-20	0	No
D*	Contracting	<5	0	No
E*	Contracting	<5	0	No
F	Contracting	20+	0	No
G*[2]	Contracting	<5	0	No
H*[1]	Contracting	5-10	0	Yes

*Core Team Member, [1]Deployed Six Months, [2]Transferred from Civil Engineering.

Qualitative analysis provides a depth and richness aimed at answering the "how" and "why" questions and constructing idiographic knowledge (Ellram, 1996). Because the "how" and "why" are common to case studies and qualitative analysis, we used qualitative analysis for this case study. In this analysis we included the relevant

published literature, theories, government policies, government directives, government guides, and transcriptions of personal interviews. The two researchers analyzed the data separately. We then discussed and resolved all discrepancies, and we present the resolved analysis in the Results section of this report.

E. RELIABILITY AND VALIDITY

Many individuals question the reliability and validity of qualitative studies due to perceived subjectivity. If researchers do not inject reliability and validity into qualitative analysis, those concerns would be warranted. "Whether quantitative or qualitative, good research design requires external validity, reliability, construct validity, and internal validity" (Ellram, 1996, p. 104).

External validity, as defined by Yin (2003), requires "establishing the domain to which a study's findings can be generalized" (p. 34). Research establishes external validity during research design. To ensure that this study has external validity, we used accepted strategic sourcing theories and government directives, policies, and guides. This provided a generally accepted basis for analysis.

The reliability of a case study is determined by whether replication is possible with the same results (Ellram, 1996, p. 104). In addition, Yin described reliability as "demonstrating that the operations of study—such as the data collection procedure—can be repeated, with the same results" (Yin, 2003, p. 34). Thus, Ellram and Yin agree that a study's process must be repeatable with the same results. Ellram (1996) provided two keys to case-study reliability: use of case-study protocol and the development of a case-study database (p. 104). A case-study protocol for this study was the interview question guide located in Appendix A. As previously stated, the questions were reviewed for accuracy and relevance. The question guide created a consistent roadmap across respondents during the interviews.

Construct validity must be maintained during the data collection phase of research. Yin (2003) stated that construct validity is obtained by "establishing correct operational measures for the concepts being studied" (p. 34). Ellram (1996) stated that "a primary element of construct validity in research is triangulation" (p. 105). Triangulation

of data allows researchers to reduce informative bias (Ellram, 1996, p. 105). In the previous section, we introduced triangulation as our study's collection method. In addition, to improve construct validity, we used multiple researchers. This is important to diffuse the premise that research use "subjective" judgments to collect data (Yin, 2003, p. 35). To ensure diffusion of subjective judgment, the research applies textual data analysis. Textual data analysis includes identifying how well the author presents an argument by examining techniques employed to achieve the author's intended purpose (Bullock & Goggin, p. 50). Additionally, textual analysis of the data includes how effective the author was at reaching the target audience (Bullock & Goggin, p. 50). For the AFFCC, this applies to all internal and external source documents.

Finally, researchers achieve internal validity during the data analysis phase (Yin, 2003, p. 34). Yin (2003) described internal validity as "establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships" (p. 34). Researchers prefer explanatory cases for doing causal studies (Yin, 2003). The AFFCC seeks to establish casual relationships by measuring success against factors such as cost savings, total cost of ownership, and transaction cost reductions.

F. CHAPTER SUMMARY

In this chapter we described our research objectives and the design, collection, and analysis methods we used in this study. We described the explanatory case study methodology we used to create an interview question guide, to collect evidence, and to ensure reliability and validity. In the next chapter, we provide consolidated responses to the interview questions we used for analysis during our research.

IV. RESULTS

A. CHAPTER OVERVIEW

In this chapter, we summarize our findings during our investigation of the AFFCC. After presenting a background of the AFFCC, we provide results from interview questions and documentation related to AFFCC development and implementation process.

B. THE CASE

In 2006, the Air Force hired Censeo Consulting Group to analyze the Air Force's furniture spend for strategic sourcing opportunities (Williams, 2006). Censeo presented its research findings to the Assistant Secretary of the Air Force (Contracting; SAF/AQC). In turn, on March 23, 2006, SAF/AQC briefed Censeo's furniture opportunity analysis to Air Force acquisition leaders. The report identified that Air Force furniture spend was highly fragmented and lacked formal standards and policies. In addition, Censeo identified that the supply market conditions were favorable for strategic sourcing (Williams, 2006). Censeo estimated that improved management of furniture spend could result in a potential savings between $6.5 million and $10 million per year (Williams, 2006). Censeo proposed that the Air Force could start achieving the $6.5 million to $10 million potential savings in a short period of time: less than one year (Williams, 2006).

In 2007, the Air Mobility Command (AMC) began developing the furnishing commodity council (FCC) to meet its command's requirements (Informant F, 2011). The FCC implementation was a response to SAF/AQC's request that each major command implement a strategic sourcing initiative (Informant F, 2011). According to Informant F, SAF/ACQ requested each command "make something happen in the strategic sourcing world as we start moving down the road about Installation Acquisition Transformation" (May 25, 2011).

During the development of the AMC FCC, the Air Force altered the Installation Acquisition Transformation (IAT) structure—a substantial organizational redesign intended to migrate from 71 individual contracting units to 5 regional units. Instead, in

2010, the Air Force established the Enterprise Sourcing Group (ESG), headquartered at Wright-Patterson Air Force Base, Ohio, to oversee all Air Force strategic sourcing initiatives (Informant F, 2011). All Air Force strategic sourcing oversight transferred to the ESG. However, AMC contracting leadership proceeded with the development and implementation of the AFFCC before transferring responsibility to the ESG (Informant D, 2011; Informant F, 2011; Informant H, 2011). Subsequently, the AMC FCC increased its scope to include all Air Force furnishing requirements, which resulted in the AMC FCC's re-designation as the AFFCC.

In March 2009, SAF/ACQ signed the Air Force Furnishings Commodity Council Charter. The following personnel agreed to the establishment of the AFFCC charter: Deputy Assistant Secretary of the Air Force (Contracting), Assistant Secretary of the Air Force (Acquisition), Headquarters Air Mobility Command Deputy Director of Installation & Mission Support, Director Air Force Center for Engineering and the Environment, and Headquarters Air Mobility Command Contracting Division Chief, and Director of Installations & Mission Support (USAF, 2009b). According the charter, the purpose of the AFFCC is to:

> establish a framework by which the Parties will collaboratively establish the AFFCC process at Scott AFB [St. Louis]. The AFFCC will provide an acquisition strategy for centralized procurement of furnishings requirements executed at centralized and decentralized levels. The AFFCC will shape buying behavior that satisfies AF [Air Force] furnishings needs by: minimizing duplication of effort, standardizing procurement policy, and providing purchasing flexibility and leveraged purchasing power, resulting in a cost-effective procurement strategy that focuses on life-cycle cost. (USAF, 2009b, p. 1)

Furthermore, the charter explained that the Air Force currently uses a tactical approach to furniture acquisition. The tactical acquisition approach involves recognizing the need, defining the requirement, and awarding a contract for each separate customer regardless of requirement similarities. Applied to the 71 continental U.S. active-duty Air Force installations, the tactical approach creates constant procurement repetition that leads to an increase overall cost that "results in unresponsive and inefficient processes" (USAF, 2009b, p. 2). The AFFCC's charter states that "bringing together a group of commodity

experts to establish the AF's furnishings acquisition strategy will ensure the best overall value for corporate agency" (USAF, 2009b, p. 2).

After SAF/AQC approved the charter, AMC established and briefed the Commodity Acquisition Management Plan (CAMP). The CAMP provided the Air Force furnishings acquisition background, AFFCC governance, and the AFFCC overarching strategy. To build the objectives outlined in the AFFCC charter, the CAMP's Statement of Need provides that "the AFFCC intends to reshape AF furnishings acquisition management to reduce total cost of ownership, generate savings from more efficient business processes [and] leverage spend" (AMC, 2009a, slide 4). Since the CAMP provides the framework for the AFFCC, the AFFCC core members used it to guide them throughout the development and implementation process.

The AFFCC established a specific acquisition strategy for each commodity, identified as a spiral. A spiral provides the technical data, business strategy, management process, and other pertinent considerations pertaining to a commodity. The overarching spiral development process includes determining the commodity profile, market analysis, demand plan, cost estimate, spend forecast, future strategy, and implementation plan. The AFFCC developed and implemented the Spiral 1, *seating,* followed by Spiral 1A, *dormitory furnishings*. Each spiral experienced its own unique successes and challenges during the development and implementation process but both resulted in successful contract award.

The AFFCC awarded Spiral 1, *seating*, BPAs to eight suppliers in June 2011 (AFMC, 2011a). In addition, the AFFCC awarded Spiral 1A, *dormitory furnishings*, BPAs to seven suppliers in May 2011 (AFMC, 2011). Both Spiral 1 and Spiral 1A consist of a base year and four option years (AFMC, 2011; AFMC 2011a). By awarding BPAs to eight suppliers for Spiral 1 and seven suppliers for Spiral 2, the Air Force rationalized their supplier base from 1,031 to 15 (Williams, 2006; AFMC, 2011; AFMC, 2011a). Furthermore, the AFFCC estimates the savings achieved through requirement consolidation and supplier optimization to be 12% for Spiral 1 and 8% for Spiral 1A (Informant H, 2011). Overall, the AFFCC approximates a 20% cost savings excluding the administrative savings from awarding and managing fewer contracts and contractors.

C. INTERVIEWS

As stated earlier, our research team collected data primarily through personal interviews and miscellaneous AFFCC source documents. We collected, analyzed, and categorized the data into the following four broad categories: resource allocation, training, development, and execution. The following sections provide our results for each category.

1. Resource Allocation

a. Personnel

The CAMP identified an AFFCC organization structure with nine core members, four advisors, and six stakeholder categories (AMC, 2009a). Of the nine core members, AMC identified four personnel as full-time. The four members' positions include a program manager, commodity expert, and two contracting officers. According to the AFFCC charter, those four core team members are "tasked with developing acquisition, buying, financial and implementation strategies in addition to providing program management, strategic purchasing, and technical expertise" (USAF, 2009b, p. 1). In addition, in Table 3 we provide the 14 specific areas the AFFCC charter identified as the core member's responsibilities.

Table 3. AFFCC Core Team Responsibilities
(From: USAF, 2009b, p. 4)

AFFCC Core Team Responsibilities	
1. Market Analysis	8. Production Capacity Analysis
2. Interoperability Analysis	9. Functional Requirement Knowledge
3. Project Management	10. Business Analysis
4. Business Process Knowledge	11. Implementation and Training
5. Business Requirements Analysis	12. Commodity Expertise
6. Commodity Market Research Analysis	13. Space Planning and Design
7. Supply Chain Analysis	14. Financial Management and Planning

All eight informants provided details about the inadequate number of personnel. Informant E stated, "we were basically three people; one for seating spiral, one for the dorm spiral and we had a commodity expert who handled both of our seating and dorm questions from the functional side" (2011). According to an informant,

manning issues resulted from the IAT. The IAT was designed to split operational base acquisition support into five regions. Each region would have an Installation Acquisition Group (IAG) responsible for all base acquisition in that region. Every contracting squadron had to transfer a certain amount of manpower to their IAG. IAT required that personnel whose position moved to an IAG relocate with that respective position. According to Informant F, the following ensued:

> people got nervous, people took jobs elsewhere, and we were losing people left and right. We lost some really quality people because of the discussion about IAT. … [P]eople started leaving in droves. … [T]hey [SAF/AQC] finally said, "Time out!" But then they still had to try and figure out a way to get the cuts in money that they promised that they would do. So, to do that they said "well, okay, let's take 250 positions" … that's 250 bodies that will now stand up this organization called the Enterprise Sourcing Group. … [T]hey took slots away … 35 of them. (May 25, 2011)

The AFFCC CAMP was structured with the resources available with no expectation of receiving additional personnel. In 2010, the ESG offered to take over AFFCC development and implementation (Informant F, 2011). AFFCC leadership decided that they would lose valuable time and resources to move it to the ESG (Informant E, 2011; Informant F, 2011; Informant H, 2011). Therefore, allocated personnel would only come from within AFFCC. As Informant F stated, "We basically had taken this out of hide" (May 25, 2011). Informant E corroborated Informant F's statement: "We took them out of hide. We had no personnel added once it became Air Force and it is my understanding any personnel that we had went to the ESG" (May 24, 2011).

b. Expertise

According to the *Commodity Council Implementation and Operations Guide*, "the key to the commodity council approach is relying on market experts for the specific commodity being purchased to make well-informed, market-savvy sourcing decisions that fully meet all enterprise-wide requirements for a specific commodity" (USAF, 2006, p. 3). As stated earlier, the AFFCC charter identifies 14 areas that the four core members are responsible for completing. A review of the 14 responsibilities listed

in Table 3 suggests that core members possess commodity and strategic sourcing expertise. However, none of the personnel initially assigned to the AFFCC had prior strategic sourcing experience or commodity expertise. Furthermore, only the program manager, a commissioned Air Force officer, had a formal strategic sourcing education from the Naval Postgraduate School, Monterey, California. Additionally, the program manager deployed for six months during the AFFCC development and implementation process. According to multiple informants, this created a continuity issue. Specifically, Informant E stated,

> we had a program manager who was military who were—being in contracting—were deploying and although they were helpful when they were here, there was the changeover and the deployments in between. So there wasn't a lot of consistent help and constant help. … I mean they may help on one of the briefings but then they would be gone and then you are losing all the historical data that they worked on and the briefing they did then you have to get yourself spun up. I mean it is important I think to keep the same team together if possible. (May 24, 2011)

Three other informants also expressed issues with continuity because of deployments. Multiple informants stated that the program manager, if military, should be put in a non-deployable status while working on the AFFCC (Informant A, 2011; Informant D, 2011; Informant E, 2011).

Informants expressed concern over the availability of specific expertise. As Informant D stated, "[The AFFCC] really needed more resources than what we had, because we didn't have the pricing analysts [or] the costing analysts" (May 24, 2011). Though the core team lacked the technical expertise, they still continued to perform their duties while requesting additional personnel. According to CAMP meeting minutes, "the AFFCC reminded [leadership] … at a minimum, [to add] a second commodity expert and a cost analyst to the team" (AMC, 2009b, p.4). However, the AFFCC never received a second commodity expert or cost analyst to assist in development and implementation.

2. Training

During the development and implementation of the AFFCC, the *Commodity Council Implementation and Operations* informational guide (USAF, 2006) provided the

guidance for commodity council training. According to the *Commodity Council Implementation and Operations Guide*, the AFFCC shall "use the Commodity Council Implementation and Operation Guide as the primary training material to review the CC [commodity council] process steps" (USAF, 2006, p. 11). However, the *Commodity Council Implementation and Operations Guide* provided little to no education about proceeding through the commodity council development and implementation process. As discussed earlier, the core team lacked experience in strategic sourcing. Therefore, the core team found it difficult to translate the information in the *Commodity Council Implementation and Operations Guide* into action. Informant D described the lack of training in the following account:

> It's like I'd look at the next person and they'd look at me and we look at the third person and say, "what is it that we need to figure out? What do we need to be looking at? What do we need to be doing?" We knew we needed to do something a little different than I guess than typical buying. (May 24, 2011)

The lack of understanding resonated with multiple informants. Informant H stated that "information is one thing; understanding is something different … you can have the information that you have to execute a spiral, but you don't really understand what it takes to go from point A to point B" (October 11, 2011). To make up for this lack of understanding about the commodity council process execution, the core team sought additional training. The training included courses with Defense Acquisition University and the University of Tennessee (UT). However, according to all the informants, it was the University of Tennessee training that was instrumental in the AFFCC development and implementation.

The Air Force contracted with UT to develop a training program for strategic sourcing. UT created a sequential training process to walk a commodity council through the development and implementation process. For the AFFCC, the training was split into three one-week classroom modules. UT coordinated with AFFCC to ensure team members received the module training at a specific point during the strategy development process. Appendix B provides an example of the UT classroom Modules 1 through 3. The AFFCC only received the UT training for Spiral 1A because UT developed the

training after Spiral 1 initiation. When asked whether the AFFCC could complete Spiral 1A without the UT training, Informant H responded, "No … it helped us to go step by step and then to make course corrections as the course material dictates" (October 11, 2011). Informant E, when asked the same question, stated,

> I couldn't have done it without that. … if I didn't have the module training to get everybody in the room and not stepping us through what needed to be done and setting goals like the work breakdown structure … who were accountable for coming up with the answers to the questions from our training. I couldn't have done it without that. (May 24, 2011)

As presented earlier, all informants stated that the UT training was instrumental to Spiral 1A's success. In contrast, Spiral 1, seating, which was not developed and implemented with the UT training process, experienced delays. Spiral 1 members' training was informal and self-driven (Informant D, 2011). "You know, just because you had to do [strategic sourcing], so [you knew] you had to get smart on it. You have to kind of be resourceful and tap into whatever resources you have at your disposal" (Informant D, May 24, 2011). Informant D went on to discuss why Spiral 1 did not utilize the UT training, stating,

> We were so far down the road with seating that we never applied those modules to the seating effort. … After we went through the module training, I can kind of look back and say, "Man, if I'd known this then, that would have helped me so much more with working the seating effort," but we were just too far down the road with seating. (May 22, 2011)

Though SAF/AQC signed the AFFCC charter in March 2009, Spiral 1, seating, began initial development in mid-year 2007 while Spiral 1A, dorm furnishings, began development approximately one year later (Informant D, 2011; Informant E, 2011). Since the AFFCC awarded Spiral 1, seating, in June 2011 and Spiral 1A in May 2011, the time needed for development and implementation of Spiral 1 and Spiral 1A after receiving the charter was approximately 48 months. The delay of award resulted from barriers such as small business, absence of spend analysis and cost analysis expertise, inadequate strategic sourcing knowledge, and an inadequate number of personnel. Therefore, using the 48 month AFFCC's strategic sourcing implementation rate and

assuming 200 strategic sourcing opportunities, we anticipate that it would take approximately 400 years for the Air Force to fully manage 100% of spend.

3. Development Process

a. Spend Analysis

As discussed earlier, spend analysis is the first step in the Air Force's Strategic Sourcing Model. It enables an organization to see how much money it spends on products and services and to identify the respective suppliers. As we previously identified, the Air Force hired Censeo to conduct a furniture business case assessment. As part of its assessment, Censeo compiled all Air Force furniture spend data from the 2005 fiscal year. After AMC decided to move forward with a FCC, AMC realized they needed current spend data but did not have the resources to perform a spend analysis. Informant A stated that they could not perform the spend analysis because they "had limited manpower [and] didn't have the expertise" (May 23, 2011). Subsequently, AMC contracted out their spend analysis to Censeo.

Censeo obtained Air Force furniture spend analysis data from four sources: Contracting Business Intelligence Services (CBIS), Standard Procurement System (SPS), Federal Procurement Data System (FPDS), and the General Services Administration (GSA). When we asked whether Censeo expressed concerns about consolidating the data from each system, Informant A stated,

> Yes … [but] they were familiar working with it. It was—you know GSA does their reports and their analysis a little different than we do it in SPS so yes it was a little tough for them but since they had experience it was better that we had somebody experienced doing it versus myself. I would have been pulling my hair out trying to figure out why the data didn't match between GSA and SPS. (May 23, 2011)

However, even though the team hired Censeo to conduct the spend analysis, two team members verified Censeo's estimates by conducting an internal spend analysis. The two team members who performed the spend analysis obtained MBAs in Strategic Purchasing from the Naval Postgraduate School, Monterey, California. As the previous statement by Informant A stated, the lack of data continuity between systems

hampered the team's ability to retrieve the data necessary for the spend analysis (May 23, 2011). After the team completed a verification spend analysis, its results were "almost parallel with what [Censeo] did" (Informant A, May 23, 2011).

After closer examination, the council members recognized that Federal Supply Code (FSC), Product Service Codes (PSC) and North American Industry Classification System (NAICS) codes skewed the numbers. Two coding problems arose from FSC and NAICS codes. First, operational bases lumped bulk furniture buys under one code regardless of appropriateness. By aggregating everything together under one code, specific furniture identification was impossible. The second issue was the "miscellaneous" FSC/PSC 9999 and general furniture NAICS (i.e., NAICS 337127: furniture, institutional, manufacturing). For unidentified reasons, contracting personnel identified furniture as miscellaneous or generalized the description. The AFFCC reported that between 10% and 30% of the data was inaccurate (Informant A, 2011; Informant H, 2011). However, even with inaccurate codes, the team members felt the spend analysis provided an accurate picture of furniture spend (Informant A, 2011; Informant H, 2011).

b. Customer Involvement

Since SAF/AQC requested that each Air Force Major Command (MAJCOM) pursue a strategic sourcing initiative, the requirement for an FCC did not come from an external customer; it was a contracting-centric initiative. According to the AFFCC charter, MAJCOM stakeholders "will appoint appropriate members to the AFFCC" (USAF, 2009b, p. 4). Thus, MAJCOM stakeholders must be identified prior to the AFFCC. The AFFCC CAMP shows that functional representative to the MAJCOM is the Air Force Center for Engineer and the Environment/Technical Directorate Built Infrastructure (AFCEE/TDB; AMC, 2009a). In addition, the CAMP identified housing managers, MAJCOM designers, AFCEE, continental United States Air Force bases including Alaska and Hawaii, U.S. Central Command, and U.S. Special Operations Command as major stakeholders in the AFFCC.

The lack of an internal customer made the requirement definition difficult. The *Commodity Council Implementation and Operations Guide* states that "a lesson

learned is to include a 'major' user representative on the commodity council" (USAF, 2006, p. 20). According to multiple informants, senior Air Force leadership priorities influenced the lack of commitment by MAJCOMs. Informant F gave the following account when we asked about high-level cooperation in response to the request for more personnel:

> I took on furnishings—I told them I wanted to take on furnishings and said that I could do this, but I could use your help by finding a customer because nobody wanted to be the customer. I ended up going to SAF/AQC and saying, "Hey, I could use your help in trying to get a customer through the HAF [Headquarters Air Force] level. Would you please go talk to A7C [Air Force Civil Engineering], in particular?" That's where most of the command design interiors work in the A7 arena … the civil engineering arena. … That's kind of what we were looking for and I got zero response on that. It was only to the point where I finally got proposals in and I needed somebody to look at it from a technical standpoint and I finally put my pleas out to the other MAJCOMS saying I needed some help in trying to find like a designer or person that works with dormitories or housing, in particular, that are used to dealing with furnishings that I finally get some help, but HAF didn't help at all even after pleas. That's just it. Everybody's busy. I got it. But, again, they're working KCX [airborne fuel tanker/cargo] and I'm working furnishings. Their importance was put on KCX, not furnishings. (May 25, 2011)

All levels of the Air Force Enterprise must prioritize mission requirements. However, without a customer to provide a requirement, the AFFCC had to "take pieces from users from past procurements to develop whatever our real requirement was" (Informant E, May 24, 2011). To that end, the core team took the initiative to find a customer to evaluate the requirement. Spiral 1 struggled because no one organization is designated to take care of chairs (Informant D, 2011). The responsibility for ordering chairs was left to a building facility manager or a resource manager in a variety of functional units. Therefore, the AFFCC defined Spiral 1's requirement with the help of MAJCOM designers and suppliers' inputs on industry chair specifications.

Spiral 1A did not experience the same outcome as Spiral 1. However, like Spiral 1, no one wanted to be the dorm furnishings customer. Fortunately, an Air Combat Command (ACC) MAJCOM representative attending UT Module 2 training volunteered to be the lead user representative for all MAJCOMs. As Informant E said, "An ACC

MAJCOM leader said, alright I will do it. I will be in charge of all the MAJCOMS. So any time I had a user question … he saw that all the MAJCOMS … get it back to me. So until I had him I was drowning" (May 24, 2011). The informant went on to explain that the networking at the UT training module training was the only reason they got customer involvement.

c. Supplier Integration

Long-term supplier integration is a major component of strategic sourcing initiatives. Collaborating with suppliers promotes product and process innovation, cost reduction, and cost avoidance. Government policies make long-term supplier integration difficult for government agencies (Bowman, et al., 2006). For example, the Competition in Contracting Act of 1984 (CICA) requires competition in public procurement. CICA promotes "full and open competition" for federal procurement, establishment of a "competition advocate" to ensure the integrity of the procurement process, and provide offerors increased ability to challenge departures from competition requirements by government acquisition professionals (Koviac, 1992). In addition, government contractual terms and conditions suggest the government inherently distrusts of contractors and are not interested in long-term relationships. However, agencies still try to find ways to improve efficiency in the supply chain. Commodity councils are an avenue to seek those efficiencies without degrading the effectiveness of the mission.

Each commodity council takes a different approach to supplier integration. Using Kraljic's Purchasing Portfolio Approach, commodity councils decide what supplier integration approach is necessary. Based on Kraljic's approach, the Air Force should categorize furniture spend as non-critical based on the low impact on the mission and low complexity of supply. Thus, supplier integration provides substantially less value for furnishings than for a strategic item. Leveraging suppliers and process efficiency provide substantial value for government furnishing procurement. However, supplier integration could fill an experience gap in the absence of government technical expertise.

The AFFCC initially conducted market research to identify the availability of suppliers that could meet its requirement. Most of its supplier interaction took place at

the yearly National Exposition of Contract Furnishings (NEOCON) Conference in Chicago, Illinois. The AFFCC commodity expert attended the NEOCON Conference every year with additional AFFCC core members to aid in information gathering. The AFFCC issued a questionnaire for potential suppliers to complete and mail back to the AFFCC. This allowed the suppliers to stay actively engaged in the commodity council (Informant D, 2011; Informant E, 2011; Informant G, 2011). Specifically, because the AFFCC did not have a customer for Spiral 1, the AFFCC would post a request for information (RFI) about the proposed seating specifications. After posting the RFI, the AFFCC took suggestions from multiple suppliers on improvements to align with industry designs and production standards.

In the long-term, the AFFCC envisions demand forecasting as an informal way to integrate suppliers. After the AFFCC establishes a new spend baseline, suppliers will be able to forecast Air Force furniture demand within a couple years of implementation. Informant H provided the following vision of supplier integration into the AFFCC acquisition process,

> If the customer or if the supplier knows that in September or—well, between August and September we purchase most of our products, then maybe seven to eight months prior to that they could negotiate with the second or third tier suppliers based on historical data … to get better savings on materials. … So those savings hopefully as we get better acquainted with their processes will then be passed on to the government. (October 11, 2011)

Multiple informants stated that government laws, regulations, and policies hinder the government's ability to integrate suppliers (Informant A, 2011; Informant D, 2011; Informant E; Informant H, 2011).

d. Small Business Concerns

The AFFCC made efforts to include small business in the acquisition process. At the beginning of the acquisition process, the AMC small business representative vacated his position. As a temporary solution, a small business representative located in Nebraska reviewed the acquisition strategy. Locally, the AMC Small Business Director provided small business advice to the AFFCC. The AFFCC

held telecommunication conferences with the off-site small business representative and AMC's Small Business Director. This ensured that all parties could communicate ideas and concerns for the inclusion of small business. Both the small business representative and the AMC Small Business Director provided input on the AFFCC acquisition strategy.

The intention of Spiral 1's acquisition strategy was for it to be a small business set-aside. After further analysis by the Air Force Small Business Solution Center (AFSBSC), only 23% of the suppliers of office furniture (excluding wood) were identified as being small business non-GSA manufactures (AFSBSC, 2009b). However, the AFSBSC provided that "there are an ample number of [wood furniture] GSA SBs [small businesses] to reserve 4 GSA BPAs [blank purchase agreements] for SB" (2009b, p. 22). Thus, the AFFCC planned to set-aside only wood seating for small business. Therefore, only small business would compete for the approximately 19% of total Air Force yearly seating spend appropriated to wood seating.

Spiral 1A, dorm furnishings, was also intended to be set aside for small business. Analysis by the AFSBSC showed that the Air Force bought 80% of dorm furnishings from small businesses (AFSBSC, 2009a). In addition, the AFSBSC noted a key piece of information that was previously missed by both the AFFCC and small business representative; mandatory preference programs of FAR part 19 do not apply per FAR 8.405–5 (AFSBSC, 2009a).

Before realizing that the BPAs could not be set aside, the AFFCC and the small business advocate differed in opinion about consolidation and bundling of requirements. Informant B stated, "we had a lot of discussion about whether or not this would be bundling and then that is when we used the legal office to make that determination whether it was bundling or not" (May 23, 2011). The legal office made the decision that it was not bundling but rather consolidation, raising concern by the small business representative that small business would be shut out of competition (Informant B, 2011). Informant B provided evidence that the AFFCC and the small business advocate still have differing opinions;

> I still do look at it as bundling but you know my decision—how my view was trumped by the lawyers. … I think they stepped through a long period

> of time trying to convince me that it wasn't bundling or consolidation and I was already convinced it was. (May 23, 2011)

Multiple informants believed that small business discussions slowed the acquisition process approximately six months to one year (Informant A, 2011; Informant B, 2011; Informant D, 2011; Informant E, 2011; Informant G, 2011). However, multiple informants suggested that it was a lack of education by both parties that led to the delay (Informant A, 2011; Informant B, 2011; Informant D, 2011; Informant E, 2011; Informant G, 2011).

e. Sourcing Strategy

Spend analysis identified that the Air Force purchased approximately 80% office furniture from the Federal Supply Schedule (FSS; AMC, 2010). Additionally, a significant portion of spend depends on application of fallout funding at fiscal year-end (AMC, 2009a). Therefore, demand is almost impossible to forecast. The AFFCC identified three demand drivers for furniture acquisition: new construction or building renovations, add-on purchases, and furniture replacement (AMC, 2009a). Because furniture is not mission-critical, funding drives furniture requirements. Because fallout funding requires quick execution, the acquisition process must be short.

The AFFCC originally planned to use indefinite delivery indefinite quantity (IDIQ) contracts to source furniture. However, because furniture purchases are typically contingent on funding, sourcing via IDIQ contracts became challenging to implement. IDIQ contracts entail a minimum funding guarantee to the contractor. In addition, the use of trivial IDIQ minimum guarantees (i.e., $10) diminishes the motivation for contractors to submit competitive offers. Because the AFFCC receives no fund allocation, BPAs provide the best available sourcing solution.

According to Informant H, after the AFFCC compared current market prices for commodities with the GSA price, the GSA price was typically 40% to 50% less than the retail price (October 11, 2011). The AFFCC found that GSA was the "most favored" customer price that suppliers gave to the government. Additionally, AFFCC felt

that competing the requirement outside, utilizing means other than the GSA BPA would result in zero net savings (Informant H, 2011).

The AFFCC believes that standardizing requirements, rationalizing suppliers, and centralizing the contract vehicle will bring an additional discount off the GSA list price. FAR 8.405–4 states that "ordering activities may request a price reduction at any time before an order, establishing a BPA, or in conjunction with an annual BPA review" (FAR, 2011). Informant H suggested that AFFCC should get an additional unit price discount between 8% and 12% as a result of requirements consolidation and known demand (2011). Additionally, transaction cost reductions provide substantial savings from supplier rationalization, fewer contracts, and various other administrative process efficiencies. After lengthy discussions about adequate small business participation on GSA, the AFFCC issued solicitations for Spiral 1 and Spiral 1A using a lowest-price-technically-acceptable (LPTA) source selection approach (Informant D, 2011; Informant E, 2011; Informant H, 2011).

4. Implementation

Development of a strategy is worthless without effective execution. The success of the AFFCC hinges on changes in buying behavior by organizations. As stated earlier, the AFFCC receives no appropriations, and thus cannot control fund allocation. Spend data collected by Censeo represented organizations' propensities to highly fragment furniture spend across approximately 3,800 suppliers (USAF, 2006). The AFFCC, along with its stakeholders, recognized that standardizing and consolidating furniture spend provides an opportunity for immediate cost savings.

Controlling maverick spend is a concern for the AFFCC. In May 2011, to ensure organizations utilize the BPAs established by the AFFCC, SAF/AQC established a policy requiring mandatory use of the AFFCC BPAs. The policy letter also states that AFFCC is the approval authority for all waivers. However, this alone will not stop organizations from buying from non-approved suppliers. Informant F provided commentary on how the AFFCC will control maverick spending:

> You control it realistically by the CONS [contracting squadron] don't have the time to do it any other way. They're going to look and say this is the easiest way for me to get furnishings in the future and that's the way I'm going to use it. They don't have time to waste on doing a full-up solicitation for themselves. (May 25, 2011)

The AFFCC admits it will be a culture change. It will take time for organizations to rely solely on the AFFCC BPAs for their furniture requirements. However, the AFFCC believes the cost and efficiency savings will entice all organizations to use the AFFCC.

To provide accountability for cost savings, the commodity council must establish metrics. Establishing metrics to account for savings provides a challenge for all commodity councils. Savings can only be achieved when an organization spends money. Thus, the Air Force must spend money to save money. By spending more money an organization is not truly reducing expenditures. However, Informant F stated, "People will spend to the budget that they have. There is no incentive to put it in a—there is no 401K. There is no savings account that you can reach into next FY" (May 25, 2011).

D. CHAPTER SUMMARY

We began this chapter with a background of the AFFCC. The purpose of the background was to provide an understanding of the AFFCC development process. In the remainder of the chapter, we presented the results pertaining to the development and implementation of the AFFCC. In the next chapter, we discuss the strengths and weaknesses of the AFFCC development and implementation process, answer our research questions, provide recommendations for future commodity councils, identify limitations of this research, and suggest areas for further research.

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V. CONCLUSION

A. INTRODUCTION

In this chapter, we analyze the results and findings we presented in the previous chapter. In addition to answering our research questions, a deeper analysis of the personal interviews and miscellaneous AFFCC source documents led us to identify the successes and challenges the commodity council encountered during its development and implementation. Based on our analysis, we provide recommendations to benefit future development, implementation, and sustainment of commodity councils throughout the Air Force and the DoD. As a final note, we discuss the limitations of our research and provide recommendations for future research.

The Air Force utilizes commodity councils to develop and implement enterprise-wide procurement. Leveraging by the commodity councils has achieved savings that make its use advantageous for both industry and the DoD. It is important that commodities continue to be analyzed by the DoD for these potential savings since commodity councils offer unparalleled efficiency and effectiveness. However, with the increasing use of commodity councils within the Air Force, there are a number of issues that need to be addressed.

B. ANSWERS TO RESEARCH QUESTIONS

Small business goals can directly compete with cost efficiency goals. Yet, the U.S. government continues to steer contracts to small businesses and to increase the use of strategic sourcing. However, there is a lack of research that determines whether supporting small business goals sacrifices strategic sourcing outcomes. In addition, not everyone agrees that meeting small business goals and strategic sourcing are mutually exclusive. Another issue with respect to the use of commodity councils is whether the commodity councils can achieve cost savings objectives if the council has no functional ownership of spend or centralized funds. The lack of spend ownership makes it difficult for the commodity council to ensure compliance with procurement policy. Additionally, the Air Force still has not identified whether commodity councils can establish accurate

cost savings metrics. The issue remains as to how to validly, accurately, and consistently measure cost savings and whether the identified cost savings metrics support the cost savings objectives. Finally, commodity councils have not answered the questions of how they can maximize utilization of their respective contracts and control maverick spending by organizations. Commodity councils have processes that deter maverick spending by giving customers flexibility, thus deterring the need to buy outside agency-wide contracts.

The problems previously discussed within the AFFCC led to the need for this study. Specifically, this study will seek to understand the factors that contributed to the successful development and implementation of the AFFCC and its sourcing strategies. The primary goals are to identify the key factors that led to the development and implementation of sourcing strategies, document and analyze challenges and successes of the AFFCC development and implementation, and provide a case study of the AFFCC to improve future implementation of effective commodity council. We initially developed five specific research questions to guide us as we conducted our research. Each research question (RQ) is independently identified and its respective results discussed below.

RQ 1. What factors contributed to the successful development and implementation of the AFFCC.

Identifying the enablers that led to the successful development and implementation of the AFFCC gives future commodity councils a framework for continued success. While there were many challenges faced by the AFFCC, we identified five factors that enabled them to fully develop and implement Spiral 1, seating, and Spiral 1A, dormitory furnishings: time, NPS education, UT training, market research, and experienced consultants.

Time proved to be a huge asset to the AFFCC. The Air Force provided the AFFCC an opportunity to develop and implement their commodity council with no time constraint. This allowed an in-depth analysis of the furnishing market and extensive discussions with small business about participation after requirements consolidation. The

process for developing and implementing Spiral 1 and Spiral 1A was approximately 48 months. With a time limit constraint, the successful development and implementation of the AFFCC may not have occurred. In addition to time, the program managers' formal strategic sourcing education provided insight needed during the development and implementation process.

During the development and implementation of Spiral 1 and Spiral 1A, military deployments resulted in the assignment of two program managers. However, both military members received formal strategic sourcing education from Naval Postgraduate School, Monterey, California. This knowledge allowed them to understand the skills core members needed to effectively develop and implement a commodity council. They identified a gap in training and personnel that resulted in hiring UT to conduct strategic sourcing training and Censeo to perform spend analysis. Their ability to understand the strategic sourcing process enabled the AFFCC to overcome initial knowledge and expertise weaknesses.

A knowledgeable, experienced spend analysis consultant enabled the AFFCC to obtain critical spend data. Though the program managers received spend analysis education, the lack of additional personnel to assist negated their abilities. Additionally, the consultant's experience merging different data collection systems provided an essential capability. In addition to critical spend data provided by the spend analysis consultant, extensive market research enabled the AFFCC to effectively develop and implement their commodity council.

Market research provided vital information needed to bridge requirement gaps in the absence of a customer and to identify the ideal sourcing solution for the inclusion of small businesses. As stated, the absence of a customer made the AFFCC's requirements definition task difficult. Market research identified key suppliers to garner pertinent information about specifications, materials, and capabilities in the current marketplace. Without the suppliers' inputs gathered during market research, the AFFCC's would not possess the capability to effectively define the requirement for solicitation. Additionally, market research allowed the AFFCC to identify the types of furnishings that currently

had adequate small business manufactures. This allowed the AFFCC to identify the sourcing strategy that created the best trade-off between cost savings and socio-economic concerns.

Finally, the UT training filled the strategic sourcing knowledge gap. As shown in Table 2, none of the AFFCC members had previous strategic sourcing experience. The lack of strategic sourcing knowledge caused the initial execution of the commodity council to slowly progress. Since the members of Spiral 1 already began development one year prior, they did not attend the UT training. Subsequently, the UT training allowed the members of Spiral 1A to accelerate development. The UT training enabled Spiral 1A to be implemented one month prior to Spiral 1.

RQ 2. How can the commodity council achieve strategic sourcing objectives (e.g., increased savings, reduce transaction costs, and improve supplier performance) if the council has no functional ownership of spend or a centralized fund?

Successful implementation of strategic sourcing objectives improves when the commodity council controls their organization's commodity market segment spend. However, the DoD hierarchical design delegates fund allocation authority to each department who, in turn, disseminates the allocated funds downward for decentralized spend execution. To increase the fiscal complexity in today's austere and politically-charged environment, Congressional DoD fund appropriations continue to lag for an extended period of time into each new fiscal year. The instability of Congressional fund allocation provides second, third, and fourth-order effects throughout the DoD. Subsequently, within each DoD department, financial planning becomes challenging. Therefore, decentralized commands typically purchase furnishings with operations and maintenance (O&M) "fallout" funds, those O&M funds yet to be spent on other priorities prior to their fiscal year expiration date on 30 September. The lack of direct fund allocation makes achieving strategic sourcing objectives difficult for any commodity council, including the AFFCC. Managing furnishing spend proves difficult since procurement funds for furnishings come from all organizations; no single functional

organizations “owns” the furnishings requirement. The lack of a single functional organization who “owns” a specific requirement has implications for other indirect, non-critical spend such as office supplies. This highlights the importance for the commodity council to develop methods to control spend allocation in the absence of functional ownership of the requirement or centralized funds.

An adequately defined requirement is essential for customer participation in strategic sourcing initiatives. However, defining the requirement becomes an arduous task when the commodity council does not have functional ownership of the requirement. To ensure that the commodity council adequately defines the requirement, a functional expert must be part of the commodity council’s core team. A functional expert provides an understanding of the commodity or service that otherwise is nonexistent. Since functional experts work with the commodity or service daily, they can coordinate internally to achieve consensus on a standardized requirement (i.e., a standard furniture configuration). Additionally, functional experts have a greater understanding of the current marketplace, thus provide valuable insight about supplier participation and supplier abilities to fulfill customer requirements. Therefore, a functional expert provides critical information to be used in determining contract type during the solicitation phase. Additionally, to manage requirement changes after award, the functional expert must become assigned as a permanent member of the commodity council.

In addition to functional ownership of the requirement, control of fund allocation for the commodity or service improves the commodity council’s ability to achieve strategic sourcing objectives. A centralized fund allocation provides the ideal situation for controlling maverick spend. However, as stated, the current DoD organizational environment promoted decentralized execution of funds. This necessitates the need for a CPO within the Air Force organizational structure. IBM implemented a center-led procurement strategy to ensure their commodity councils achieve strategic sourcing objectives while still maintaining decentralized fund execution. According to Weele and Rozemeijer (1996),

> IBM’s new procurement organization provides suppliers with consolidated, enterprise-wide requirements and a ‘virtual’ organization

> with a single contact point (the commodity council) for 'contracting'. However, in all cases the actual purchasing operations are decentralized. Production buying is organized around divisional global procurement executives. These managers report to the Chief Purchasing Officer (CPO), but also to their line manager. The business unit managers meet with the CPO on the corporate business councils, so there is direct contact between the CPO and them. Here common agreements are decided upon. The CPO works with each of these managers individually to make sure that the corporate-wide procurement strategy is consistent with what the division needs to have. In this way IBM is able to benefit from its massive purchasing power, while at the same time pursuing maximum operational flexibility for its manufacturing plants. (p. 156)

IBM's center-led procurement organizational structure provides a model to meet strategic sourcing objectives with decentralized fund allocation. The Air Force should adopt such a model to meet their strategic sourcing objectives. Without a CPO to ensure compliance with the Air Force's procurement strategy, the AFFCC established GSA BPA contracts to leverage pricing in the current decentralized organizational structure. The AFFCC planned to use IDIQ contracts to source furniture. However, because furniture purchases are typically contingent on funding and having a customer, an IDIQ sourcing strategy became challenging to implement. Since GSA contracts are not subject to the set-aside requirements of FAR Part 19, GSA BPAs provide the best sourcing approach.

To achieve strategic sourcing objectives, the AFFCC standardized requirements, rationalized suppliers, and centralized the contract vehicle bringing additional discount off the GSA list price. As stated earlier, Informant H suggested that AFFCC should get an additional discount between 8% and 12% (2011) a year for the duration of the base year plus four option years. After the AFFCC transitions to Wright-Patterson Air Force Base, Ohio, a new team will continue management of Spiral 1 and Spiral 1A along with creating additional furnishing spirals. The continuous management provides oversight of spend formally without ownership. Therefore, the AFFCC's use of GSA BPAs that utilize decentralized ordering enables them to meet strategic sourcing objectives. The addition of a commodity expert in future commodity councils could improve the probability of gaining functional ownership of furnishings spend. Commodity councils are designed for long-term cost savings to commodity and service acquisitions. Only with support from senior leadership to permanently place adequate personnel and

expertise on commodity councils will the commodity council be able to implement strategic sourcing objectives without functional ownership of requirements or without the ownership of centralized funds.

RQ 3. How can the commodity council support small business goals without sacrificing strategic sourcing objectives?

Government agencies must balance acquisition efficiency with socioeconomic concerns, specifically small business participation in government procurement. For industry, leveraging the supply base through requirements consolidation and bundling is critical to an organization's strategic sourcing success (Bowman et al., 2006). Unfortunately, the use of consolidation and bundling competes directly with small business development goals (Bowman et al., 2006). However, the AFFCC made efforts to include small business in the acquisition process. At the beginning of the acquisition process, the AMC coordinated with the AMC Small Business Director and the designated small business representative. All parties communicated ideas and concerns for the inclusion of small business. Both the small business representative and the AMC Small Business Director provided input on the AFFCC acquisition strategy.

The intent of both Spiral 1 and Spiral 1A's acquisition strategy was for them to be small business set-aside contracts. To enable the Air Force to meet its strategic sourcing objective, it required the consolidation of requirements. The AFFCC and AMC Small Business Director differed in opinion on whether the AFFCC's proposed strategy met the definition of consolidation or bundling. The legal office made the decision that it was not bundling; subsequently, the AFFCC pressed forward with implementing the strategy.

Through spend analysis, the AFSBSC identified that only 23% of the suppliers of office furniture were small business non-GSA manufactures (AFSBSC, 2009b). However, the AFSBSC provided that wood seating comprised of mostly niche small business manufactures (AFSBSC, 2009b). In addition, for Spiral 1A, the Air Force bought 80% of dorm furnishings from small businesses (AFSBSC, 2009a). Thus, it was determined even with consolidation, the AFFCC would receive adequate small business

competition for Spiral 1 (wood seating) and Spiral 1A (dorm furnishings). However, the AFSBSC noted that mandatory preference programs (i.e., small business set-aside) in FAR part 19 do not apply per FAR 8.405–5 (AFSBSC, 2009a). While the AFFCC still had the option to include small business as an evaluation factor, the AFFCC decided that a LPTA source selection methodology provided the best fit to meet both the strategic sourcing objectives and small business goals. Though the AFFCC did not establish a small business set-aside, our research found potential opportunities to effectively support small business goals without sacrificing strategic sourcing objectives.

When a commodity council performs a detailed spend analysis and market research, they become aware of small businesses' participation in the commodity or service marketplace. For instance, the AFFCC identified that while large businesses manufactured a majority of non-wood seating, small businesses manufactured majority of the wood seating (AFSBSC, 2009b). Additionally, through market research, the AFFCC determined that adequate small business competition for wood seating existed (AFSBSC, 2009b). Therefore, wood seating provided an opportunity for a partial small business set-aside. Though wood seating would be a set-aside, the competitive marketplace drives prices down resulting in lower total cost of ownership while supporting small business objectives. Additionally, if market research indicates that aggregating requirements substantially hinders the small business manufacturing base, a regional contract approach to reduce the contract scope could prove more effective at balancing strategic sourcing and small business objectives than a nation-wide acquisition strategy.

GSA BPAs provide another avenue to support small business goals while maintaining strategic sourcing objectives. GSA BPAs offer the flexibility to include socioeconomic consideration since GSA BPAs adhere to requirements under FAR Part 8 versus FAR Part 19. For contracts adhering to FAR Part 8 requirements, FAR Part 19 requirements to substantiate consolidation or bundling do not apply. According to FAR subpart 8.405–5(a)(1)(ii), contracting officers, at their discretion, may set-aside BPAs for small business (2011). If market research concludes that there is limited small business participation but available small businesses possess the capability to perform, the contracting officer may set aside a portion of the GSA BPA for small business.

However, if market research determines that adequate small business participation exists, the commodity council should achieve deeper discounts and an expanded competitive marketplace. Therefore, the used of GSA BPAs allow both the agency and small business to achieve their objectives.

Finally, it is imperative that a commodity council be assigned a small business representative as part of their core team to ensure a balance between small business goals and strategic sourcing objectives. The small business representative provides the knowledge and expertise needed to ensure effective inclusion of small business goals in strategic sourcing strategies. Additionally, as multiple AFFCC informants stated, small business concerns slowed the commodity council's development and implementation process between six months and one year (Informant A, 2011; Informant B, 2011; Informant D, 2011; Informant E, 2011; Informant G, 2011). While a small business representative advised the AFFCC, the lack of accountability to the AFFCC potentially decreased the representative's active participation during the development and implementation process. Therefore, assigning a small business representative as a core team member maintains the small business representative allegiance to the commodity council's task of developing and implementing their strategic sourcing initiative.

RQ 4. How did the AFFCC establish a verifiable cost savings methodology that is valid, accurate, consistent, and objective?

The Air Force commodity councils have struggled with identifying and analyzing strategic sourcing metrics. Specifically, the AFFCC struggled with the development of a cost savings methodology that is valid, accurate, consistent, and objective. Metrics such as cost savings are required for the successful execution of strategic sourcing. The efforts of strategic sourcing must be measured against goals, industry benchmarks, or other metrics in order to drive appropriate purchasing strategy (Duffy, 2008). Commodity councils established before the AFFCC reported significant savings, but these cost savings proved difficult to verify (AFAA, 2010). This brings into question the commodity council's ability to establish accurate cost savings and validation metrics.

Specifically, the AFAA found that the councils inconsistently computed savings and reported savings that could not be validated (AFAA, 2010). For example, the Medical Services Council could not provide supporting documentation to verify labor costs. In the following year, the Medical Services Council calculated savings using a different methodology. The theme across all commodity councils was the lack of a standardized and consistent cost savings methodology (AFAA, 2010). Therefore, the issue remains as to how to establish a cost savings estimation methodology that is valid, accurate, consistent, and objective.

In the AFFCC's efforts to develop a cost savings methodology, the council created three business cases that represent three areas of cost savings. The first area includes furniture standardization, which has estimated cost savings between $14.3M-$35.5M over a five year period. The second area includes savings from the development of centralized contract vehicles. This area is subdivided between savings from volume discounts and savings from improved purchasing efficiency. Volume discounts as a result of consolidation are estimated to account for 3.2%–9.3% ($9.5M-$27.3M) of cost savings over a five year period. Improved purchasing efficiency through administrative cost avoidance is estimated to account for 2.1% ($6.1M) of cost savings over the first five years. As a result, the second area accounts for a combined estimated cost savings of $15.6-$33.4M over the first five years. The third area consists of savings from comprehensive furniture management services (CFMS). CFMS consists of seven areas of management services: project management, asset management, reconfiguration/relocation management, space planning and design, packaged furnishing, asset maintenance, site preparation and reconfiguration. CFMS replaces support and technical expertise no longer supported by organic sources within the USAF. The consolidation of the management services under a centralized contract results in additional savings. Savings from this area are estimated between 2.9% and 3.5% ($11.3M and $13.6M, respectively) over the first five years. The total estimated savings, over the first five years, from all three business cases is 10.6%–21% ($41.2M–$81.8M respectively (AMC, 2009a).

To compute cost savings, the AFFCC utilized Censeo's expertise to gather pertinent data to create a saving calculation methodology and baseline. The AFFCC used a percentage of savings based on government and commercial savings benchmarks, historical spend analysis from FY00-FY07, and forecast information to compute savings estimates listed in the business case studies. In addition, each business case includes hard savings, soft savings, or a combination of the two (AMC, 2009a). The variation of hard and soft savings in the cost savings estimates shows a limitation in the savings estimates. The current savings methodology provides a benchmark in which actual savings can be compared with the estimated savings after the first five years. However, the current savings methodology highlights the need for a standardized and centralized methodology to measure actual cost savings before the five year time period.

To document the savings identified in the business case study, the AFFCC created a methodology to measure cost savings in three categories: rate (cost savings from economies of scale based on historical spend data), demand management (both cost savings and cost avoidance from reduced consumption), and process improvement (savings from administrative costs avoidance). The AFFCC's three savings categories are based on commercial industry practices. Figure 7 shows an example of NCR's hard cost savings methodology, tracking, and validation process. NCR is an industry leader in strategic sourcing. In addition, Table 4 illustrates how NCR calculates soft savings or cost avoidance.

Lever	Calculation	Data Required
Rate	- Net reductions in prices paid for items procured when compared to prices in place for the prior 12 months or change to lower cost alternatives [Old price - New price] * Volume	•Summary PPV reports from the BUs •Copies of the old and new contracts plus data that supports actual volumes (POs, etc.) •Travel information (# of tickets, cost per ticket, etc.) from travel provider •Temporary Services information (# of hours, rates, etc.) from Managed Service Provider
Rate "Market"	- Industry market movement (positive and negative) by commodity [Old price - New price] * Volume.	•Data from manufacturers (e.g., price information form Dell, Solectron, etc.)
Demand	- Proactive programs to reduce usage [Volume reduction] * Price.	•Copies of cancelled contracts (including emails or other written documentation to suppliers) •Lists of names (mobile phone cancellations, etc.) •Temporary Services information (# of directed hires, moving work in house, etc.) from Managed Service Provider
Compliance	- Calculations vary depending on the commodity and type of cost reduction. Driving demand to approved programs or preferred suppliers and eliminating the premium paid when "outside" of the program.	•Lists of names (mobile phones and pagers — getting them on the correct programs) •Temporary Services information (# of people outside the bill rates, etc.) from Managed Service Provider •Travel exception report from travel provider
E&S – *(Engineering & Specification)*	Proactive programs which change the manufacturing product specifications and designs [Old bill of materials – New bill of materials] * Volume.	•Summary MUV reports from the BUs

Figure 7. NCR Cost Reduction Levers and Tracking and Validation Process (From: Ashenbaum, 2006, p. 12)

Table 4. NCR Procurement Savings Calculations (From: Ashenbaum, 2006, p. 13)

NCR Procurement Savings Calculation	
Price Increase Avoidance	[Proposed price increase – negotiated price] x volume
Cost Avoidance	[Quoted price – negotiated price] x volume
Value Added Savings	Value of additional service at no cost (goods or services that are received and have an intrinsic value not billed as part of the contract)

The AFFCC measured success as achieving savings via a reduced GSA price based on volume discounts. These savings are referred to as hard cost savings. The AFFCC doesn't appear to place a measure on soft savings (i.e., cost avoidance). Cost savings and cost avoidance are both essential to the success of strategic sourcing and must be included in the savings methodology. However, there is no standardized definition of cost savings and cost avoidance. In 2006, a report by Ashenbaum (p. 2–3) defined both cost savings and cost avoidance. Ashenbaum (2006, p. 2) defined cost savings, or hard savings, as:

- Year-on-year saving over the constant volume of purchased product/service
- Actions that can be traced directly to the profit and loss statement
- A direct reduction of expense or a change in process/technology/policy that directly reduces expenses
- Process improvements that result in real and measurable cost or asset reductions
- The examination of existing products or services, contractual agreements, or processes to determine potential change(s) that reduce cost
- Net reductions in prices paid for items procured when compared to prices in place for the prior 12 months, or a change to lower cost alternative, i.e.., [old price – new price] x volume
- Must have prior baseline or standard cost for the purchased product or service to measure savings against prior purchases
- Tangible bottom line reductions resulting in saved money that could be removed from budgets or reinvested back into the business

Furthermore, Ashenbaum (2006, p. 3) defines cost avoidance as:

- Avoidance is a cost reduction that does not lower the cost of products/services when compared against historical results, but rather minimized or avoids entirely the negative impact to the bottom line that a price increase would have caused
- When there is an increase in output/capacity without increasing resource expenditure, in general, the cost avoidance savings are the amount that would have been spent to handle the increased volume/output
- Avoidances include process improvements that do not immediately reduce cost or assets but provide benefits through improved process efficiency, employee productivity, improved customer satisfaction, improved competitiveness, etc.
- Often becomes cost savings over time
- Not tangible savings that can be pulled out or reinvested

The above discussion highlights a methodology for the measurement of costs savings. However, the AFFCC lacks a measurement methodology to determine whether strategic sourcing strategies achieve success and to identify programs/activities used to enable strategic sourcing strategies. The use of a balanced score card can fill this gap. The balanced score card consists of four perspectives: financial (how do we look to shareholders?), customer (how do our customers see us?), internal business (at what business process must we excel at?), and learning and growth perspectives (What do we need to do to improve?) (Braun, Tietz, & Harrison, 2010). Each perspective consists of four procurement related components: objective, measure, target, and initiative (Duffy, 2008). The balanced scorecard approach will enable the AFFCC to link purchasing strategies with Air Force wide strategies (Carter, Monczka, Mosconi, & McKinsey & Company, 2005), Appendix G illustrates an example of Merck's procurement scorecard (Duffy, 2008, p. 26). Additionally, Duffy (2008) states,

> When it comes to reporting on the scorecard, the key is to link the measures to analysis and recommendations – again the focus on action. To track performance, the question is: how are the objective and its measure(s) performing? The analysis then becomes: why is the measure performing as it is? What activities support this objective? The recommendation would come from the question: What actions or decisions are needed. (p. 25)

The newly created savings allows the AFFCC and all AF commodity councils to utilize a standardized cost methodology based on three categories to report savings over time. To be considered reliable, consistent, objective, and verifiable, the cost savings methodology depends on the establishment of an accurate baseline. The AFFCC used GSA to obtain baseline commercial prices and GSA discounted prices. The price of each task order will be compared with the additional volume discounts offered by the AFFCC BPA providers to determine the net purchase price, which also serves as a reliable and accurate Independent Government Estimate (IGE). The AFFCC used the spreadsheets shown in Appendix H to document the IGE and to form an audit trail. A similar template is used by the AFFCC when soliciting for contractor quotes. The spreadsheets illustrated in Appendix H allow the AFFCC to compare GSA pricing with the net BPA discount price.

This standardized methodology will allow the AFFCC's cost savings to be measured consistently and objectively. However, the methodology appears to lack validation since the methodology relies on contractor pricing inputs not historical spend data. Therefore, we recommend that the AFFCC utilize the practices identified in the AFAA's 2007 evaluation (Audit Report F2007–0011-FB4000) of the implementation and management of the USAF's Network Centric Solutions Contract (NETCENTS) to achieve cost savings validation. The AFAA recommended that NETCENTS establish a baseline to evaluate cost savings. Specifically, the AFAA identifies GSA prices as an adequate predetermined baseline that can be used to evaluate cost savings (AFAA, 2007). We recommend that the AFFCC utilize random sampling and analysis of furniture task orders to compare AFFCC contractor bids with other acquisition sources such as GSA and previous furniture buys at the unit level. We also recommend that the cost savings results be posted in a location that allows customers to view the cost savings achieved through the use of the centralized BPAs. This will further achieve customer buy-in and provide incentive for customers to utilize the mandatory BPAs and mitigate maverick spending.

We also recommend that the AFFCC adapt the NETCENTS cost savings methodology. This will enable the AFFCC to compare actual cost savings against an established baseline.

> To test whether using the NETCENTS contract resulted in anticipated cost savings, at each location we selected all NETCENTS awards if less than research amount identified on the AF Form 9 to the actual award amount and determine the average cost savings. We performed the same comparison for all mandatory non-NETCENTS contract awards and compared the cost savings from NETCENTS to non-NETCENTS contract awards. (AFAA, 2007, p. 13)

Furthermore, the AFFCC must establish metrics to measure warranties, training, technical standards, and special terms and conditions; i.e., total cost of ownership. The metrics enable the AFFCC to manage suppliers more effectively and maximize cost savings. In addition, it shows the customer the benefits of using the centralized BPAs and that the lowest price was not necessarily the best value. Therefore, AFFCC's BPAs provide obvious incentives justifying their use to the customer.

Based on the research findings, we have several recommendations for the AFFCC with respect to their cost savings methodology. First, we recommend that the AFFCC create standardized definitions for *cost savings* and *cost avoidance* as well as clearly specify the data collection processes needed to calculate savings results (Carter, Monckza, Mosconi, & McKinsey & Company, 2005). Second, we recommend that the AFFCC utilize NCR's savings calculations for both cost savings and cost avoidance. This will enable the AFFCC to achieve savings metrics that are both objective and consistent. We further recommend that the AFFCC incorporate the savings reporting methodology (Appendix F) illustrated in a 2009 CAPS report by Carter, Monczka, & Ragatz (p. 18). In addition, the AFFCC should continue to use the spreadsheets in Appendix H to establish a baseline that can be used to document cost savings. However, we recommend that the AFFCC incorporate estimated delivery times and actual delivery times in order to document cost avoidance through the use of the AFFCC BPAs.

Due to the volume of SKUs, we recommend that the AFFCC identify the top 10 SKUs (Stock Keeping Units) by purchase volume and dollar amount. The SKUs should be averaged to establish an average actual cost. The average actual cost should be compared with the average discounted GSA prices (i.e., the baseline). In addition, the AFFCC could use random sampling of SKUs to compare actual costs with discounted GSA prices to estimate a savings percentage. Further research is needed to determine a way to automate the cost savings process so that it can be accomplished in a timelier manner. This will allow discrepancies, deficiencies, and weaknesses to be identified quicker, thus leading to improved efficiency and effectiveness. Next, we recommend that the AFFCC incorporate NCR's tracking and validation process. This will enable to the AFFCC to document and validate savings on a timely and consistent basis (i.e., quarterly). Next, we recommend that the AFFCC utilize a third party to validate their savings methodology. Specifically, we recommend that the AFFCC utilize the AFAA to validate their cost savings methodology on an annual basis. In addition, we recommend that the AFFCC incorporate a financial analyst into the commodity council. This individual would be responsible for owning the processes for calculating cost savings and performing audits of actual savings submitted by the AFFCC Director on a quarterly

basis **(**Carter, Monckza, Mosconi, & McKinsey & Company, 2005). In addition, the financial analyst role should be expanded to provide expert cost savings support to all Air Force commodity councils. This will improve the accuracy of the cost savings and cost avoidance and further validate the AFFCC's savings methodology. Next, we recommend that the AFFCC create a procurement balanced score card to link strategic objectives with purchasing execution across the entire USAF. This will enhance the measurement of purchasing's effectiveness (Duffy, 2008). Next, we recommend that the AFFCC develop a rewards system to reinforce the established metrics and to drive appropriate purchasing behavior by management. Finally, we recommend that the AFFCC review its communication plan to ensure that Air Force customers are aware of the standardized BPA ordering process available through AFAdvantage

RQ 5. How does the commodity council maximize utilization of its respective contracts and control maverick spending by organizations?

Maverick spend is defined as spend that is purchased outside of the mandatory purchasing process (i.e., outside of the intended in-place contract). It is essential for the Air Force to use its centralized furniture BPAs to procure goods and services. Without the use of strategic sourcing contracts, significant savings cannot be realized. Maverick spending is mainly caused by customers who are unaware of the current supplier relationship or by customers who cannot get exactly what he wants from the corporate contracts (Eakin, 2002). Therefore, the AFFCC must establish processes that deter maverick spending by giving customers flexibility, thus deterring the desire to go "off-contract" (Reese & Pohlman, 2005).

The AFFCC must have buy-in from its stakeholders to mitigate maverick spend. Specifically, the purchasing and buying activities, contracting units and customers respectively, must be aware of the AFFCC contracts and their mandatory use. To achieve this, the AFFCC drafted a policy letter, to be signed by the Deputy Assistance Secretary (Contracting)/Assistant Secretary (Acquisition), mandating the use of the AFFCC centralized purchasing agreements. The mandatory use policy letter provides and

awareness of the requirement to use the AFFCC purchasing agreements. However, the centralized and standardized furniture procurement process is a major change from how furniture was purchased in the past. To prevent maverick spend, the use of the AFFCC purchasing agreements will require a cultural change within the Air Force. The mandatory use policy letter jump starts the cultural change. However, other incentives are needed to bring about a cultural change.

To bring about cultural change requires change by the contracting units and the customers. The AFFCC does not foresee an issue with the cultural change among the contracting units. Contracting personnel will appreciate the centralized contracts; the shortage of contracting personnel and the increased contracting workload will allow contracting personnel to concentrate on other key purchasing areas. With respect to the contracting units, Informant F stated, "This is the easiest way for me [contracting officer] to get furnishings in the future. They [contracting personnel] don't have time to waste on doing a full-up solicitation themselves" (2011). Customers, however, may not be as appreciative of the standardized furniture requirements. In the past, customers chose furniture from a variety of sources. As a result, organizations across the Air Force do not have standardized furniture. As customers require additional and/or replacement furniture, they will want the furniture to match existing furniture. The AFFCC purchasing agreements are setup to standardize an entire room. Basically, the agreements purchase "rooms in a box." That is, the agreements are setup so that all furniture in a room will be from the same source. When a customer needs only a replacement piece of furniture and not an entire room of furniture, the replacement piece will not exactly match the existing furniture. This may lead customers to pursue other avenues to purchase similar furniture, which will result in maverick spend. Informant F stated, "It's not going to be the CONS that I'm worried about. It's going to be the customer that's saying I want something different. They have to be shown the policy letter that says sorry, here are your choices when it comes to dorm furnishings; here are your choices when it comes to seating, this is the mandatory use contract" (2011).

It is likely that the cultural change will follow the current life cycle of furniture. As furniture needs to be replaced, customers will become aware of the AFFCC contracts

in place. In addition, the current and future budget constraints will force customers to purchase furniture within their budgets. As budgets shrink, customers will look for lower furniture prices. These lower prices will come from the AFFCC agreements. Furthermore, there is no incentive for organizations to save money. They will spend until they deplete their budget. This presents a problem in itself. Other than purchasing furniture with less money, there is no incentive for customers to save money. This is an area that requires further research as providing incentives to save money would provide a significant reason for customers to use the AFFCC agreements. Thus, maverick spending would be mitigated if not eliminated.

C. DISCUSSION AND IMPLICATIONS

1. Resource Allocation Analysis

For the U.S. government, having not only the capacity to perform requirements but also the capacity to manage outsourced requirements continues to be an issue (Schooner, S. L. & Greenspan, D. S., 2008). The downsizing of the federal acquisition workforce during the 1990s dramatically reduced the level of acquisition expertise within the DoD (Schooner, S.L. & Greenspan, D. S., 2008). Thus, DoD leaders continually face the challenge of allocating the adequate number of personnel with the correct level of expertise. Without a CPO to ensure the appropriate allocation of talent and implementation of rigorous education and training, the DoD continues to struggle to obtain and retain the resources necessary to effectively implement industry best practices.

The lack of adequate resources was not an exception for the AFFCC. The AFFCC was initially tasked by SAF/AQC to create a commodity council in order to strategically purchase furniture. AMC divided furniture into subcategories called spirals. The furniture commodity council was responsible for Spiral 1, which consisted of seating, and Spiral 1a, which consisted of dorm furnishings. The commodity council consisted of four personnel, which included a project manager, two contracting specialists, and a commodity expert. However, in 2006, the furniture business case analysis called for one full-time project manager, one part-time procurement analyst, one full-time contract manager, one full-time contract specialist, and 10 part-time extended

team members (Williams, 2006). As stated earlier, the commodity council was responsible for purchasing furniture for AMC requirements. Shortly thereafter, the requirement for furniture was expanded to include furniture purchases across the entire Air Force. Following this drastic change in scope, leadership did not allocated additional personnel to the commodity council (Informant E, 2011). Thus, the lack of additional personnel and inadequate strategic sourcing expertise overwhelmed the commodity council members.

Next, AFFCC leaderships' efforts to seek additional personnel failed to gain the priority at the SAF/ACQ level. While Informant F understood that the AFFCC was low priority, the FCC recommendation came from SAF/ACQ. The lack of focus at the enterprise level suggests that strategic sourcing is still in the habitualization phase. In addition, the lack of resource allocation by senior leaders suggests that the Air Force's organizational culture still does not fully embrace strategic sourcing initiatives. As stated earlier, because leadership did not appoint an adequate number of personnel to the AFFCC, the AFFCC requirements overwhelmed the core team members.

In addition to the lack of sufficient personnel, the AFFCC experienced challenges with expertise and continuity. To assist the contract specialists, leadership assigned one commodity expert to the AFFCC. Because leadership only assigned one commodity expert to the AFFCC, all technical information for Spiral 1 and Spiral 1A became her responsibility. Although the commodity expert identified outside resources to help define the requirement, the process was inefficient. In addition to only having one commodity expert, the AFFCC only had two personnel that had a formal strategic sourcing education. Therefore, the lack of adequate expertise hampered the AFFCC's ability to formulate an efficient development and implementation strategy.

Personnel continuity also provided an obstacle for the AFFCC. A military member filled the project manager position. As a military member, the individual deployed multiple times while assigned to the FCC (Informant A, 2011). During the project manager's deployment, leadership assigned another military member to the project manager position (Informant E, 2011). Subsequently, that project manager was deployed. Because the military members received formal strategic sourcing education,

they provided the AFFCC strategic sourcing expertise. In an effort to fill the project manager void, the civilian contract specialists assumed the project manager's responsibilities for their respective commodity spirals (Informant E, 2011). There was not a full-time contracting officer assigned to the FCC. We also emphasize that the civilians were contract specialists, not contracting officers. Each contract specialist was responsible for his respective spiral. They assumed all required actions during the acquisition process from initial requirement definitions to contract award. The specialists did not have any contract support personnel to assist them. Though the contract specialists are salaried employees, the considerable amounts of overtime resulted in an overall total acquisition cost increase to the federal government (Informant E, 2011).

Finally, the commodity council lacked key support personnel. Specifically, the AFFCC did not include a business requirements analyst, a market intelligence analyst, a procurement analyst, a business process analyst, a financial analyst, or an economic analyst. *The Commodity Council Implementation and Operations Informational Guide* specifically identifies and defines these positions as core team members (USAF, 2006). Either the contract specialists or the commodity subject matter expert accomplished the duties of the vacant positions. For example, the commodity subject matter expert took on the role of requirements analyst (Informant G, 2011). This forced already inexperienced personnel to gain additional training to perform complex tasks.

The implications from this finding are widespread. The DoD established that strategic sourcing initiative are imperative to achieving the cost efficiencies necessary to continue its mission. The lack of capacity to perform strategic sourcing initiatives within the DoD should be a major concern for leaders. It is imperative that steps to strengthen the current DoD acquisition workforce continue into the foreseeable future. Without the capacity to adequately implement a strategic sourcing initiative, the DoD will find it difficult to achieve cost savings targets.

2. Training Analysis

Trained and educated teams are critical to the successful implementation of commodity strategies (Rendon, 2005). Wolf (2005) provides that "Strategic purchasing

can only be effective if the purchasing department constantly expands and updates its technical knowledge…" (p. 19). Strategic sourcing requires a thought process that goes against the traditional tactical view of purchasing. It requires a deeper understanding of the forces surrounding the buyer-supplier relationship. Because the AFFCC was AMC's first strategic sourcing endeavor, we assumed that AFFCC personnel received extensive, ongoing strategic sourcing training. Therefore, the revelation that AFFCC team members started the acquisition process with only a small number of computer-based training modules came unexpectedly. Through interviews, AFFCC team members identified that they did not possess the requisite strategic sourcing background and training needed to efficiently and effectively create a new commodity council (Informant E, 2011). As a result, the AFFCC member's personally sought out the strategic sourcing guides available for development and implementation of a commodity council.

The team initially relied on the *Commodity Council Implementation and Operations Informational Guide* for the AFFCC development and implementation (USAF, 2006). However, the guide's framework failed to provide the in-depth instructions needed to implement a successful commodity council. As a result, the AFFCC sought additional classroom training to improve their strategic sourcing knowledge. The Air Force hired UT to design a commodity council implementation training course. The UT training was instrumental in the successful development and implementation of the AFFCC (Informant E, 2011).

The UT training provided a step-by-step module-based commodity council development and implementation process for the AFFCC. The AFFCC attended three separate one-week training modules at UT (schedule shown in Appendix B). Each module consisted of briefings, class work, and homework. In addition, after each module, key participants received tasks to complete before the next session. All informants commented that the training provided a detailed course of action and outlined the appropriate steps necessary to complete the AFFCC development and implementation. Informant H stated that "information is one thing; understanding is something different … you can have the information that you have to execute a spiral, but you don't really understand what it takes to go from point A to point B" (October 11,

2011). Without the UT training, the AFFCC could not have successfully developed and implemented the AFFCC spirals (Informant H, 2011).

The struggles that the AFFCC encountered provide important implications to the DoD about the adequacy of current training. Current strategic sourcing curriculum available for government employees (i.e., DAU on-line continuous learning modules) provides a basic understanding of strategic sourcing. However, as shown by the AFFCC, these courses do not develop the skills needed to effectively and efficiently develop and implement a commodity council. It was not until the AFFCC attended the UT training that they possessed the skills necessary to develop and implement a commodity council. While the research only focused on one case, the lack of effective strategic sourcing training material proves problematic for the DoD as it promotes efficiency in acquisition.

3. Development Process Analysis

In 2006, SAF/AQC briefed a furnishings strategic sourcing business case. The business case was developed by Censeo Consulting Group and highlighted benefits available through the strategic purchasing of furniture (Williams, 2006). Although the AFFCC charter was signed in 2009, acquisition planning for the FCC began in 2007 at the direction of SAF/AQC to implement a strategic sourcing initiative. When the AMC decided to create a FCC for their MAJCOM, they conducted further market analysis into the furniture commodity group. AMC contracted Censeo to conduct another spend analysis. The spend analysis provided the foundation for the development of the AFFCC. Since AMC did not have the expertise to complete the spend analysis, they appropriately contracted for that function. Censeo analyzed the spend data from multiple government systems in an efficient and effective manner by using a staff of over 20 cost analysts (Informant A, 2011). This would not have been possible for the AFFCC to accomplish in a timely manner given the limited personnel resources.

Given the AFFCC's limited personnel resources, the AFFCC collaborated with other agencies to gain insight on how to develop and implement the commodity council. The AFFCC collaborated with the Defense Acquisition University (DAU), the U.S. Navy, the Naval Postgraduate School (NPS), UT, and GSA to learn how best to

accomplish the furniture strategic sourcing objectives (Informant A, 2011). In addition to collaborating with the agencies, the AFFCC also collaborated with furniture suppliers through industry conferences and information-gathering communications with vendors. The AFFCC attended the annual NEOCON in Chicago, Illinois, to speak with vendors to gain valuable insights into the furniture industry. The AFFCC also sent out a request for information from vendors (Informant D, 2011). This communication is critical in the early stages of the commodity council process. Since collaboration with key stakeholders is an important part of strategic sourcing, we identified this as a success. AFFCC gained insights from more established strategic sourcing programs and from industry.

A stakeholder analysis is essential for a commodity council to meet its objectives and the needs of the end users. Unfortunately, the AFFCC members did not conduct a stakeholder analysis for the seating and dorm furniture spirals in the initial stages of the strategic sourcing process. The AFFCC was unaware of the need to conduct a stakeholder analysis until the UT training made them realize the value in a stakeholder analysis. As a result, the AFFCC was unable to identify and define accurate furniture requirements. This resulted in furniture requirements that had to be rewritten once the stakeholders and end users were identified and engaged in collaboration with the commodity council. During the UT training, a MAJCOM leader volunteered to act as the requirements liaison between the AFFCC and the end users. This process expanded the AFFCC's network and allowed the council to collect requirements from end users across the entire Air Force (Informant E, 2011). By not conducting a stakeholder analysis, the commodity council failed to receive stakeholder buy-in.

Stakeholder buy-in is very important to meet a commodity council's objectives. A council cannot be successful without the support of the stakeholders. The lack of stakeholder buy-in created friction points with the AFFCC's end users whose options became limited after standardizing furniture options. The end users did not view this as favorable because the AFFCC failed to gain their buy-in early in the process. The council needed stakeholder buy-in so that the end users would provide their furniture requirements to the council. It was more difficult for the council to gain buy-in later in the process because the end users felt like they were forced to accept the strategic

purchasing of furniture, and that it was not in their best interest (Informant E, 2011). Had the AFFCC received buy-in early in the process, the end users may have been more open to the idea of strategic purchasing and its benefits. They also would have been able to provide more information on requirements earlier in the process.

One of our research questions asked whether small business goals sacrificed strategic sourcing outcomes. In the case of the AFFCC—specifically Spirals 1 and 1A (seating and dorm furnishings, respectively)—our research indicated that the answer is that it depends on the situation. It depends on the commodity being purchased, the market research, the acquisition strategy, and acquisition policies. For example, Spiral 1A, dorm furnishings, planned to award BPAs based on GSA schedules. Initially, the AFFCC planned to use small business set-asides. However, FAR part 8 indicates that small business set-asides established in FAR part 19 are not mandatory for GSA schedules (FAR, 2011, § 8.405–5). Therefore, the council was unable to set aside the requirement for small businesses (Informant E, 2011). This created a challenge for the AFFCC in that it needed to determine how to support small business goals without sacrificing strategic sourcing outcomes. This situation is unique to this commodity council because of the use of the GSA schedules.

The AFFCC relied on its market research and the AFSBSC business case analysis to create an acquisition strategy that would meet both strategic sourcing and small business goals. For example, the AFFCC market research for Spiral 1, seating, showed that many small businesses manufacture wood seating. However, large businesses account for approximately 50% of non-wood seating. The AFFCC originally planned to compete wood seating as a small business set-aside and the non-wood seating as full and open competition (AFSBSC, 2009b). However, the use of GSA contracts did not allow the AFFCC to use this method. The AFFCC had to find another approach.

Even with the mandated use of GSA BPAs, the AFFCC was able to determine that there were enough wood seating small businesses that several small businesses would most likely submit a bid. As a result, the council expects a 34% ($1.2 million) increase in small business dollars over current small business dollars (AMC, 2010). This shows that strategic sourcing does not sacrifice small business goals even without using

small business set-asides. Market research and acquisition strategy provided key small business participation determinants during the strategic sourcing process.

Finally, we found the sourcing strategy to be a success up to the point of contract award. Seating and dorm furnishings are classified as non-critical within Kraljic's (1983) purchasing portfolio approach. As such, the AFFCC focused on leveraging volume to gain savings. The council achieved price savings by awarding BPAs against GSA schedules. When compared with market prices, the GSA BPA schedules offer prices significantly lower than retail market price (Informant H, 2011). Additionally, the BPAs incorporated volume discounts beyond the GSA pricing schedule. This sourcing strategy focused on price analysis, which is the appropriate strategy given the non-critical nature of the spend. The AFFCC rationalized the supply base by reducing the number of suppliers by 1,014. This decreased supplier fragmentation and allowed the Air Force to use its bargaining power to achieve additional volume discounts. The actual costs savings will need to be measured at a future date to determine the extent to which the council realized expected savings.

By standardizing furniture across the Air Force, rationalizing the supply base, leveraging the Air Force's buying power, and evaluating offers on a LPTA sourcing strategy, the council achieved additional discounts beyond what individual purchasing activities could achieve. Even though the council has no functional ownership or centralized funding, it works with stakeholders to provide a standardized solution to achieve cost savings. This will require future research to compare actual spend with baseline data.

4. Implementation Analysis

As Informant F stated, "People will spend to the budget that they have. There is no incentive to put it in a—there is no 401K. There is no savings account that you can reach into next FY" (May 25, 2011). Budget-maximization theory addresses leaders' and managers' propensities to spend all allocated funds. The culture change necessary to maximize the utilization of the AFFCC and to control maverick spending will continue to be a challenge for acquisition professionals. However, the U.S. government's current

fiscal challenges make implementing strategic sourcing initiatives that achieve cost savings and reduce TCO a less arduous task.

Limiting maverick spend will be the major implementation challenge. With the creation of the AFFCC and standardized furniture purchases, end users are limited in their furniture choices. As a result, end users might intentionally not use the established furniture BPAs. On the other hand, maverick spending may occur if end users are not aware of the BPAs. This may result in unintentional avoidance of the established BPAs. To avoid this, the AFFCC must create and implement a marketing plan to educate the Air Force on new strategic sourcing initiatives. We surmised that acceptance of strategic sourcing across the Air Force and DoD provides greater efficiency savings as a result of customer buy-in, ease of implementation, and consistency of use by customers .

D. RECOMMENDATIONS

In this section, we make our recommendations for improving commodity council development and implementation based on our research findings. Our research indicates that acquisition professions within the Air Force lack adequate strategic sourcing knowledge. Additionally, military acquisition personnel with strategic sourcing expertise deploy causing an issue with continuity and efficiency. Finally, the Air Force delegated responsibility for developing strategic sourcing initiatives to the contracting function. While contracting personnel acquire the acquisition skills necessary to develop and implement strategic sourcing initiatives, customers drive requirements. As experienced by the AFFCC, the likelihood of a commodity council meeting its savings objectives diminishes if customers do not have a stake in its success. To address these five main issues identified during our research, we recommend implementing the following five suggestions to increase efficiency and effectiveness of commodity council strategic objectives.

1. Strategic Sourcing Distance Learning Degree Program

Since strategic sourcing is an ever-evolving acquisition initiative, acquisition professionals need a viable strategic sourcing training program to establish a knowledge base instrumental for strategic sourcing expertise development. While DAU currently

offers strategic sourcing computer-based training (CBT) modules, the AFFCC demonstrated that the CBTs lacked the rigor necessary to effectively develop and implement a commodity council.

To build a cadre of acquisition professional with extensive strategic sourcing knowledge, we recommend the adaptation of the current, traditional delivery of the NPS strategic sourcing MBA program via distance learning. Informants offered on multiple occasions that their lack of strategic sourcing knowledge hindered efficient commodity council implementation. To compensate for their lack of strategic sourcing knowledge, the USAF contracted with UT to provide commodity council development and implementation training. While it was a huge success, a more robust academic strategic sourcing curriculum provides returns on the Air Force's investment well into the future.

With the availability of a distance learning MBA program with an emphasis in strategic sourcing, civilians who would normally do not have the opportunity to relocate to pursue academics could have the opportunity to advance their knowledge base. As pointed out during the analysis of the AFFCC, military members' deployments caused continuity and efficiency issues; thus, civilian personnel are the ideal target for this degree program. Additionally, mid-career officers receiving their advanced academic degree from NPS are often not available for long to apply their strategic sourcing knowledge since their military promotions entice them to pursue other assignments (e.g., squadron command, executive officer, career broadening, etc.). It is nonsensical to educate those who will not be available to do strategic sourcing for any appreciable length of time (i.e., military), while simultaneously denying the educational opportunity to those workforce members who will be around to – and will be expected to - do strategic sourcing (i.e., civil servants). The degree program could equip Air Force civilian personnel with knowledge necessary to achieve acquisition efficiencies sought by the DoD.

2. Obtain Program Management, Spend Analysis, Market Analysis, and Cost Analysis Expertise

The AFFCC experienced issues with resource allocation causing delays in Spiral 1 and Spiral 1A implementation. For a commodity council to be effective, they must understand what needs to be done and have the personnel to execute the acquisition plan. Unfortunately, the AFFCC had neither the knowledge nor the personnel. Leadership must understand that doing more with less comes with higher costs. For instance, the combined lack of adequate personnel and expertise delayed AFFCC implementation for at least one year (Informant C, 2011; Informant D, 2011; Informant E; 2011). The AFFCC attributed military deployments as a reason for the lack of personnel and expertise.

The project manager role is essential for the success of the commodity council. The project manager must ensure oversight and continuity of the commodity acquisition. Since a military member served as the project manager, the project manager position promises to be vacant for at least six months. Unfortunately, the AFFCC experienced this twice during development and implementation. As a result, the AFFCC lost manpower, continuity, and strategic sourcing expertise. Therefore, we recommend that future project manager position be filled by a full-time civilian.

Second, the value of the commodity council lies in the cross-functional expertise assigned to the team. The cross-functional group used by the AFFCC differentiates the commodity council from a traditional purchasing organization. "Preferably, the Council should contain commodity expertise, as well as knowledge in maintenance, engineering, procurement, technology, market analysis, project management, business processes, and acquisition strategy and analysis" (Gillen, 2006). Leaders must ensure that commodity councils consist of the correct mix of cross-functional expertise. The AFFCC struggled since it did not have the proper mix of personnel (i.e., cost-analyst, market analyst). If the Air Force does not have the ability to fill these positions internally, it is essential that the Air Force contract for the required expertise. The knowledge gained from cost, market, and spend analyst increases the key data needed to quickly implement strategic sourcing initiatives. Though the AFFCC identified the lack of certain personnel,

leadership provided no additional personnel to the team; a result of not having a CPO ensuring adequate resource allocation. We recommend that future commodity councils contain the right mix of expertise to increase efficiency in the development and implementation process.

3. Hire a Chief Procurement Officer from Industry

An organization's reluctance to follow or adopt recommended processes improvements creates a barrier to promoting the strategic relevance of procurement (Ardent Partners, 2011). The lack of both leadership and customer involvement during the AFFCC development and implementation process suggests a reluctance to follow or adopt recommended process improvements in the Air Force. Fryman and Haile (2011) provide their *Center-Led Air Force Procurement Organizational Structure*, shown in Figure 6, for the addition of a CPO to the current Air Force organizational structure. The addition of the CPO promotes short-term and long-term cost savings, improves acquisition processes, and increases acquisition expertise (Ardent Partners, 2011). Additionally, the CPO allocates resources necessary to obtain and retain the resources necessary to effectively implement industry best practices within the Air Force.

To successfully create organizational change, the Air Force should hire an experienced CPO from industry. Industry's experience in realigning procurement within the organization allows the Air Force an opportunity to capture a seasoned CPO with the skills necessary to implement proven acquisition initiatives, influence key Air Force decision-makers, and drive transformation. Fryman and Haile's (2011) addition of the CPO to the Air Force organizational structure fills the procurement leadership position needed to manage and promote acquisition efficiency initiatives throughout the Air Force organization. Obtaining a CPO from a corporation such as IBM, who, since the 1990's, adopted the CPO to create a procurement position with executive standing could provide the Air Force procurement leadership necessary effectively and efficiently procure mission requirements in the current austere environment (Axelsson, Rozemeijer & Wynstra, 2005).

4. Establish Customer Driven Commodity Councils

Customers prove instrumental to the commodity council successful outcome. For most government acquisitions, the customer drives the requirement. However, commodity councils provide a different acquisition approach. To garner savings from the duplication of requirements, the commodity council proactively engages industry to reduce procurement costs. Through spend analysis, commodity councils anticipate requirements and seek efficiencies through leverage. However, the customer does not drive the formation of the commodity council.

Leadership develops the formation of commodity councils. Therefore, commodity councils' top-down direction differs from regular acquisitions bottom-up requirement requests. Though commodity council direction comes from leaders, not customers, the commodity council needs customers to define the requirements. Without customers' input, defining the requirement promises to be an arduous task. Commodity councils seek efficiencies by leveraging anticipated customer requirements. Therefore, without customer involvement, the likelihood that a customer maximizes the commodity council's efficiencies reduces dramatically. Therefore, we recommend that a customer representative be assigned full-time to the commodity council for the duration of the development and implementation process.

5. Implement Negative Incentives to Mitigate Maverick Spend

The mitigation of maverick spend is essential to the AFFCC's success. Therefore, the AFFCC implemented mandatory use policy letters signed by the Deputy Assistant Secretary for Contracting, Office of the Assistant Secretary of the Air Force for Acquisition. The policy letter proves effective only if monitored and enforced. Therefore, the policy letter must be monitored and enforced as appropriate. If the policy letter fails to provide the desired effect, then the policy letter must be strengthened. Specifically, the mandatory use policy letter can be made stronger through the inclusion of negative incentives in response to maverick spend.

The AFFCC should conduct routine spend analysis to identify maverick spend. If maverick spend proves significant, then the effect of the mandatory use policy letter

should be evaluated. Furthermore, the AFFCC should instill negative incentives to eliminate the maverick spend. This should be followed by exception reporting to the buyer's 2-letter at the SAF/HAF level and local MAJCOM/CC and Wing /CC – coupled with a requirement for a response as to how it is curtailed in the future. Along those lines, SAF/AQC could make its mandatory use policy letter stronger by employing negative incentives. For example, maverick spend could be determined not to be fair & reasonable because the prices obtained were not lower than those offered by the AFFCC BPA. As a result, all such purchases would be considered unauthorized commitments and could not be ratified. Civilian and military contracting members in violation of the mandatory use policy letter would lose their warrant. This negative incentive must include GPC holders such that GPC holders would lose their GPC.

6. Maximize GSA BPA Utilization

Policy, socioeconomic, and political barriers make implementing strategic sourcing in the Government an arduous task. The AFFCC spent approximately six months to a year trying to meet small business goals while still providing the cost efficiencies the Air Force requires to modernize the force. However, with a slow implementation process, achieving complete management of all Air Force spend could take as long as 400 years at the current pace. Procurement strategies that optimize quick development and implementation should be sought. GSA BPAs provide such optimization.

As discussed, the use of GSA BPAs by the AFFCC allowed for truncation of socioeconomic procurement planning. Though the AFFCC performed extensive market research to determine the extent of small business participation, they concluded that an LPTA sourcing strategy provided the ideal trade-off between cost efficiency and socioeconomic concerns. Since GSA BPAs do not require set-aside consideration, the likelihood of better pricing increases because of increase marketplace competition.

As provided in research question three, GSA BPAs offer the flexibility to include socioeconomic consideration. According to FAR subpart 8.405–5(a)(1)(ii), contracting officers, at their discretion, may set-aside BPAs for small business (2011). If market

research concludes that there is limited small business participation but available small businesses possess the capability to perform, the contracting officer may set aside a portion of the GSA BPA for small business. However, if market research determines that adequate small business participation exists, the commodity council should achieve deeper discounts and an expanded competitive marketplace. Therefore, the use of GSA BPAs provides the balance between cost savings goals and socioeconomic goals the government needs to ensure weapons modernization in the future.

E. STUDY LIMITATIONS

Limitations constrain all research projects—especially time and funding. Our research was no exception. During this research, in addition to time and funding, limitations included interviewing all key informants, accessing source data, establishing external validity, and meeting submission deadline requirements.

By interviewing all key informants, researchers improve the likelihood of identifying informant biases. Unfortunately, due to personnel turnover and personal tragedy, three key informants were unavailable for interviews. During the site visit to AFFCC, we inquired about the unavailable informants' commodity council responsibilities to ensure we collected all pertinent data.

In addition, our research had finite access to source data. This was due to the limited amount of time available at Scott Air Force Base, Illinois. To make up for the time limitation, the AFFCC prepared a compact disk containing some source documents for the researchers. However, the compact disk contained limited source documents. The AFFCC also assigned a liaison to assist us in retrieving any further data for analysis.

The third limitation to our research was establishing external validity. Replication of findings provides external validity to research (Yin, 2003). Because we experienced a time constraint, we were unable to replicate the research with other commodity councils. To help control for external validity, we used a triangulation approach to data collection.

Finally, our degree program requires that a research report be completed upon graduation. This requirement placed a time constraint of approximately nine months for

data collection, analysis, and presentation. In order to complete all necessary research functions, we truncated the scope of our research to only the AFFCC. As discussed, this hindered our ability to establish external validity through research replication.

F. RECOMMENDATIONS FOR FUTURE RESEARCH

As strategic sourcing continues to gain popularity within government organizations, replication of this case study research will garner deeper insight into resource allocation, training, development and implementation. Future recommendations for commodity council case study research includes studies to determines the impact of strategic sourcing on small businesses, compare historical spend data with cost savings estimates and actual commodity council spend data, identify the trends among all of the commodity council reports, and assess the Enterprise Sourcing Group based on measures of performance and measures of effectiveness. Furthermore, comparative analysis of multiple commodity council case study results provides an opportunity to establish greater external validity, prompting a greater understanding of commodity council's development and implementation successes and challenges.

Another potential area for future research is the development of a defense-wide acquisition agency (DAA). Currently, the DoD service departments utilize their own set of policies and procedures for acquisitions. By having multiple agencies simultaneously letting multiple contracts with the same requirement, the DoD fails to achieve volume discounts from suppliers. Additionally, the administrative savings could prove to outperform savings achieved by consolidation of requirements.

Furthermore, our research of the AFFCC illustrated that at the current development and implementation rate for strategic sourcing initiatives it would take approximately 400 years to implement a potential 200 strategic sourcing opportunities. To improve implementation efficiency, we recommend a study to determine a way to truncate the schedule and reduce the time need for steps 1–5 of the strategic sourcing framework shown in Figure 5.

Finally, further research is needed to compare data collection and analysis processes and electronic software used by the DoD to conduct spend analysis and

decision making with data collection and analysis processes and electronic software used by leading commercial industry firms. Specifically, research is needed in the area of modeling to produce better forecast of Air Force wide requirements. Today's technology capabilities provide information overload. Studies are needed to evaluate ways to effectively capture spend data, incorporate the data into a model, and use the model to forecast requirements. This will lead to improved purchasing efficiency and effectiveness. By comparing the DoD's current approach with industry leaders, the USAF will be able to adapt commercial best practices in this area.

G. SUMMARY

A case study methodology enables research to answer "how" or "why" a specific event occurs. Researching multiple cases related to a specific event provides a greater understanding. This study sought to answer specific questions about the design and implementation of the AFFCC to provide insight for future commodity council development and implementation. We explored qualitative analyses of peer-reviewed literature, theories, government policies, directives, and guides, and conducted interviews with past and present members of the AFFCC.

Our analysis was concentrated to four specific areas: resource allocation, training, development process, and implementation. A deeper analysis of the personal interviews and miscellaneous AFFCC source documents led to the identification of the successes and challenges the AFFCC encountered during the development and implementation of the AFFCC. In addition, we explored the challenges associated with the research questions based on the results of the qualitative data. Based on lessons learned, we provided recommendations to benefit future development, implementation, and sustainment of commodity councils throughout the Air Force and the DoD.

Acquisition efficiency provides the DoD cost and efficiency savings it needs to meet downward budgetary pressures. To accomplish acquisition efficiency, the DoD and other U.S. government agencies look to industry. However, the private and public sector's "clash of cultures" makes implementation of these best practices difficult. Continuous case study research identifying successes and challenges of implementing

industry best practices in government (i.e., strategic sourcing) improves successful development and implementation of future acquisition initiatives. Thus, this study, along with past and future acquisition research, sets the framework for improving U.S. government acquisition efficiency and effectiveness.

APPENDIX A. AFFCC INTERVIEW QUESTIONS

Part One: Furnishings Commodity Council Development and Implementation

A. Resources

1. How many people were involved in the commodity council development? Was it enough?
2. What functional areas made up the team?
3. How were members on the commodity council selected?
4. Were the functional areas involved the correct mix? If not, what area should have been included or not included?
5. Did the composition of the team remain the same or change throughout the development process? If no, did this hinder the commodity council development?
6. What were the team dynamics? Was each team member valuable or valued? What authority, if any, did each member possess?
7. Describe what the organization culture. Was the assigned authority sufficient? How did it add to or take away from the development process?

B. Training

1. Did members of the team possess a solid understanding of the strategic sourcing initiatives and the Air Force vision to achieve these initiatives?
2. Did individuals possess the correct skill sets for their role within the team? If not, was additional training required?
3. If additional training was required, how was it accomplished?
4. Is formal training available and required?

C. Plan

1. Did this commodity council have a documented Furnishing Commodity Council development and implementation plan outlining specific objectives?
2. If a plan was in place:
    a. Was the plan designed by team members or instituted at a higher level?
    b. What considerations were taken into account when the plan was designed?
    c. How was the plan made available to all the team members, if at all?
    d. Was the plan followed? In not, why?
3. If a plan was not in place, why not?
4. How did you organize your resources, activities, and milestones to fit your strategic direction?

D. Implementation

1. How long did it take to stand up the commodity council? Was it on time? If implementation was late, then why?
2. How long did it take to award the first spiral? Was it on time? If implementation was late, then why?
3. What were the results of the first spiral source selection?

Part Two: Furnishings Commodity Council Sourcing Strategy and Execution

A. Commodity Sourcing Strategy

1. Was there an established process for each phase of the acquisition?
2. Was the process followed? If not, what was done differently?
3. What impact, if any, did transactional cost have in the process?
4. Were best practices from industry or other commodity councils incorporated in the process?
    a. If yes, explain how the best practices were identified and incorporated.
    b. If no, why?
5. How did you transform the traditional decentralized purchasing function to a strategically sourced purchasing function?
6. What were the successes in the process development?
7. What were the issues faced during the process development?

B. Small Business Concerns

1. How were small business goals integrated into the process without sacrificing strategic sourcing outcomes?
2. What were the main concerns that the SBA had?
3. How did you address these concerns?
4. How was the relationship with the SBA during the commodity council development and implementation process? Elaborate.

C. Spend Analysis

1. Along which dimensions did you conduct a spend analysis?
2. How did you collect the data for the spend analysis?
3. How did you calculate the total cost of ownership when doing the spend analysis?

D. Cost and Performance Metrics

1. How were the critical cost drivers and performance metrics identified?
2. How did you evaluate/incorporate those cost drivers and performance metrics?
3. What is the cost and performance objective? What are the consequences if not obtained?
4. What metrics were established to define the commodity council as a success or failure?
5. How did the commodity council address funding issues (i.e. the lack of functional ownership over spend or fund allocation) since there is no single customer?
6. How do established savings metrics account for the lack direct fund allocation to the commodity council?
7. How do the established metrics entice organizations to use the commodity council who do have fund allocation?

E. Supplier Integration and Relationships

1. Were suppliers integrated into the development process, if at all?

2. How did you meet the requirements of justifying "consolidation" as stated in the FAR?
    a. Describe the approval process both internally and with the SBA.
    b. What were the challenges?
    c. What documentation and analysis was required? Can you provide copies?
3. What areas within the buyer-supplier relationship were most important to the commodity council?
    a. How were these areas identified and measured during source selection, if at all?
4. If suppliers were integrated, how did they contribute to the successful development?

F. Accountability Process

1. What has been incorporated to enforce use of this commodity council?
2. What mechanisms or policies are in place to reduce "maverick" spending?
3. How are those mechanisms or policies enforced?
4. What metrics were established to ensure savings are accurate, consistent, objective, and verifiable?
    a. How were these metrics identified?
    b. What process has been established to validate these metrics?
    c. Were these metrics approved by a higher authority? If so, whom?
5. To whom does the CC director report? Is this the same person identified in the planning phase? If not, why?

G. Overall Assessment

1. What has the commodity council achieved?
2. What did the first spiral achieve?
3. Is the overall strategy of the commodity council still on track with initial expectations using the performance metrics established?
4. What lessons learned should be captured and relayed to developers of future commodity councils?
5. What political hurdles did you encounter? How were they overcome?
6. What are the significant barriers or threats to standing up a commodity council?

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APPENDIX B. UNIVERSITY OF TENNESSEE TRAINING MODULE SCHEDULE

Module 1 - Build the Team, Review Current Strategy and Market Intelligence

	Day 1	Day 2	Day 3	Day 4	
8 00	Introductions	Recap - Previous Day	Recap - Previous Day	Recap - Previous Day	8 00
15		Develop Communications Plans w/ILS	Define Desired Outcomes w/ILS	Request Information & Analyze Emerging Suppliers/Services w/ILS	15
30					30
45	Program Overview				45
9 00					9 00
15	Break	Break	Break	Break	15
30	Baseline Understanding	Intro to Work Breakdown Structure (WBS)	Review & Refine Results	Analyze Intel & Document Findings	30
45					45
10 00					10 00
15		Break	Break	Break	15
30	Break	WBS - Step 1	WBS - Step 2	WBS - Step 3	30
45	Baseline Understanding (con't)				45
11 00					11 00
15					15
30	Lunch	Lunch	Lunch	**Lunch**	30
45					45
12 00					12 00
15					15
30	Opportunity Assessment	Identify Initiatives, Document Performance & Begin Risk ID (2 ILS)	Introduction to Market Intelligence	Project Management	30
45					45
1 00					1 00
15				Project Management ILS	15
30	Break	Break	Break		30
45	Ensure Support & Build the Team (w/ILS)	Document Processes	Determine Data Sources w/ILS	Module 1 Course Wrap	45
2 00					2 00
15				**CLASS ENDS**	15
30	Break	Conduct Spend Analysis			30
45	Stakeholder Analysis		Break		45
3 00		Break	Develop a Standard Interview Guide w/ILS		3 00
15					15
30	Break	Benchmark Existing Strategies & Identify Opportunities (1 ILS)			30
45	Stakeholder Analysis ILS (4 ILS)		Break		45
4 00			Conduct Market Intel		4 00
15					15
30					30
45					45

Module 2 - Develop Program Requirements and Sourcing Strategy

	Day 1	Day 2	Day 3	
8 00	Introductions	Recap - Previous Day	Recap - Previous Day	8 00
15		Requirements Roadmap ILS (with Break)	Determine Costs for Alternatives	15
30				30
45	Homework Review (includes breaks)		Evaluate Option Risks w/ILS	45
9 00				9 00
15				15
30			Break	30
45			Rank the Alternatives / Solution Sets w/ILS	45
10 00				10 00
15				15
30				30
45			Break	45
11 00			Prepare the Recommendation	11 00
15				15
30			Socialize & Validate w/ILS	30
45				45
12 00	Lunch	Lunch	Lunch	12 00
15				15
30				30
45				45
1 00	Define & Prioritize Program Objectives	WBS Step 4	Update Communications Plan ILS	1 00
15				15
30	Program Risk Assessment	Strategic vs. Tactical	WBS Step 5	30
45		Define the Problem / Opportunity w/ILS		45
2 00				2 00
15	Break		Module 2 Course Wrap	15
30	Risk Assessment ILS			30
45		Break		45
3 00		Formulate Assumptions w/ILS	**CLASS ENDS**	3 00
15				15
30	Break			30
45	Program Requirements Roadmap			45
4 00		Generate Alternatives / Solution Sets w/ILS		4 00
15	Refine Desired Outcome ILS			15
30				30
45				45

Module 3 - Execute the Strategy and Manage Performance

	Day 1	Day 2	Day 3	Day 4	
8 00	Introductions	Recap - Previous Day	Recap - Previous Day	Recap from Previous Day	8 00
15		Performance Measures ILS	Finalize the Performance Plan w/ILS		15
30				Plan for Continuous Improvement w/ILS	30
45	Homework Review (includes breaks)	IGE / ASP			45
9 00		Prepare Acquisition Plan			9 00
15					15
30		Break	Break	Break	30
45		Develop Source Selection Plan w/ILS	Manage Performance	WBS Step 6.12 through Step 7 (includes break)	45
10 00			Administer Program		10 00
15					15
30					30
45		Break	Break	Break	45
11 00		Identify Source Selection Team w/ILS	Administer Program ILS 1 & 2	Review of Goals	11 00
15					15
30				Module 3 Course Wrap	30
45					45
12 00	Lunch	Lunch	Lunch	CLASS ENDS	12 00
15					15
30					30
45					45
1 00	Develop the Acquisition Project Plan w/ILS	Develop RFP	Administer Program ILS 3		1 00
15					15
30					30
45	Develop Business Strategy for Acquisition w/ILS	Break	Evaluate Effectiveness of Strategy		45
2 00		WBS Step 6.1 - 6.12			2 00
15			Break		15
30	Break		Supplier Relationship Management		30
45	Consider Incentives w/ILS				45
3 00					3 00
15		Source Selection / Award	Break		15
30	Break	Break	SRM ILS		30
45	Develop PWS/SOO w/ILS	Post Award Implementation Kickoff Agenda ILS			45
4 00					4 00
15			Conduct QBR's		15
30	Develop Performance Measures		Update Comm Plan ILS		30
45					45

APPENDIX C. DORM FURNISHINGS MANDATORY USE LETTER

DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC

22 AUG 2011

OFFICE OF THE ASSISTANT SECRETARY

MEMORANDUM FOR ALL MAJCOM/DRU/FOA (Contracting and Civil Engineer)

FROM: HQ SAF/AQC
1060 Air Force Pentagon
Washington DC 20330-1060

SUBJECT: Mandatory Use Policy for Air Force (AF) Dormitory Furnishings Acquisitions Within the United States (Including Alaska and Hawaii)

1. The AF Furnishings Commodity Council (FCC) has established a set of Dormitory Furnishings Blanket Purchase Agreements (BPAs) estimated to deliver 8 percent savings. The BPAs leverage the approximate $20 million of annual AF spend on dormitory furnishings. The new BPAs provide a flexible solution that reduces the total cost of ownership, maximizes small business participation, minimizes duplication of sourcing efforts, and improves business process efficiency.

2. Based upon the recommendation of the FCC, and our role as the Furnishings co-Commodity Sourcing Officials, we have determined a mandatory-use policy is warranted for the procurement of all dormitory furnishings for AF installations located within the United States. Deviation from this policy is only authorized by receiving an approved waiver from the AF FCC.

a. Effective immediately, all AF contracting offices and Government Purchase Card (GPC) holders shall use the Dormitory Furnishings Blanket Purchase Agreements (BPAs) to purchase all CONUS AF dormitory furnishings. In accordance with FAR 8.002, all higher level mandatory sources were provided a fair opportunity to participate, but did not satisfy the requirements of this program. The BPA contractor catalogs and Dormitory Furnishings Ordering Guide are located on the AF Advantage website (www.afadvantage.gov) and are ready for use. A copy of the detailed AF Dormitory Furnishings Ordering Guide is also attached to this letter. The dormitory BPAs can be accessed through the Electronic Document Access (EDA) website http://eda.ogden.disa.mil/eda_main.htm. Ongoing information on this program can be found on the Furnishings Commodity Council website https://es.cis.af.mil/airforcecontracting/esg/AFFCC/default.aspx.

b. Enforcement of this policy will be monitored through the use of improved management reporting tools that provide detailed information on all AF dormitory furnishings-related spend. CONS and GPC cardholders are reminded to comply with the Defense Procurement Acquisition Policy, "Improving Competition in Defense Procurements" memos for all solicitations above the Simplified Acquisition Threshold (SAT), including solicitations that do not produce more than one quote.

3. For further information or for a waiver request, please e-mail furnishings.cc@wpafb.af.mil or contact Mr. Rick Bigler, Director, AF FCC, HQ AFMC/ESG, DSN 674-1277, (937) 904-1277.

WENDY M. MASIELLO, Maj Gen, USAF
Deputy Assistant Secretary (Contracting)
Assistant Secretary (Acquisition)

PAUL A. PARKER, SES
Director of Communications,
Installations and Mission Support, AFMC

Attachment:
AF FCC Dormitory Furnishings
Ordering Mandatory Use Guide

APPENDIX D. SEATING MANDATORY USE LETTER

DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC

29 SEP 2011

OFFICE OF THE ASSISTANT SECRETARY

MEMORANDUM FOR ALL MAJCOM/DRU/FOA (Contracting)

FROM: HQ SAF/AQC
1060 Air Force Pentagon
Washington DC 20330-1060

SUBJECT: Mandatory Use Policy for Air Force (AF) Office Seating Acquisitions within the United States (Including Alaska and Hawaii)

1. The AF Furnishings Commodity Council (FCC) has established a set of Office Seating competitively awarded Blanket Purchase Agreements (BPAs) estimated to deliver 14 percent savings. The BPAs leverage the approximate $20 million of annual AF spend on office seating. The new BPAs provide a flexible solution that reduces the total cost of ownership, maximizes small business participation, minimizes duplication of sourcing efforts, and improves business process efficiency.

2. Based upon the recommendation of the FCC, and our role as the Furnishings co-Commodity Sourcing Officials, we have determined a mandatory-use policy is warranted for the procurement of all office seating for AF installations located within the United States. Deviation from this policy is only authorized by receiving an approved waiver from the AF FCC.

a. Effective immediately, all AF contracting offices and Government Purchase Card (GPC) holders shall use the Office Seating Blanket Purchase Agreements (BPAs) to purchase all CONUS AF office seating. In accordance with FAR 8.002, all higher level mandatory sources were provided a fair opportunity to participate, but did not satisfy the requirements of this program. The BPA contractor catalogs and Office Seating Ordering Guide are located on the AF Advantage website (www.afadvantage.gov) and are ready for use. A copy of the detailed AF Office Seating Ordering Guide is also attached to this letter. The office seating BPAs can be accessed through the Electronic Document Access (EDA) website http://eda.ogden.disa.mil/eda_main.htm. Ongoing information about this program, including e-copies of the mandatory use policy letter and Ordering Guide, can be found on the Furnishings Commodity Council website at https://es.eis.af.mil/airforcecontracting/esg/AFFCC/default.aspx.

b. Enforcement of this policy will be monitored through the use of improved management reporting tools that provide detailed information on all AF office seating-related spend. CONS and GPC cardholders are reminded of the requirement to comply with the policies regarding competition as outlined in OUSD/AT&L DPAP memoranda dated 24 November 2010 and 27 April 2011 entitled "Improving Competition in Defense Procurements" and "Improving Competition in Defense Procurements - Amplifying Guidance", respectively. Specifically, if the

acquisition exceeds the SAT and only one offer is received and the solicitation was advertised for less than 30 days, unless a waiver is obtained from the HCA, the contracting officer must re-advertise for an additional 30 days. Further, if the solicitation was open for at least 30 days, or has been re-advertised and still only one offer is received, the contracting officer shall conduct negotiations with the offeror, unless this requirement is specifically waived by the HCA.

3. For further information or for a waiver request, please email furnishings.cc@wpafb.af.mil or contact Mr. James Boys, Contracting Supervisor, AF FCC, HQ AFMC/ESG, DSN 787-5684, (937) 257-5684.

WENDY M. MASIELLO, Maj Gen, USAF
Deputy Assistant Secretary (Contracting)
Assistant Secretary (Acquisition)

PAUL A. PARKER, SES
Director of Communications
Installations and Mission Support, AFMC

Attachment:
AF FCC Office Seating
Ordering Mandatory Use Guide

Distribution

APPENDIX E. DOD 2010 SMALL BUSINESS PROCUREMENT SCORECARD

Department of Defense
2010 Small Business Procurement Scorecard

B
95.8

FPDS-NG Data as of April 29, 2011
eSRS Data as of May 31, 2011

Prime Contracting Achievement:			93.83
	2009 Achievement	2010 Goal	2010 Achievement
Small Business	21.13%	22.28%	20.94% ($61.120B)
Women Owned Small Business	3.37%	5.00%	3.59% ($10.472B)
Small Disadvantaged Business	7.19%	5.00%	7.12% ($20.773B)
Service Disabled Veteran Owned Small Business	1.43%	3.00%	1.82% ($5.303B)
HUBZone	3.26%	3.00%	3.00% ($8.753B)

Sub Contracting Achievement:			107.53
	2009 Achievement	2010 Goal	2010 Achievement
Small Business	34.22%	31.70%	37.30%
Women Owned Small Business	5.63%	5.00%	6.30%
Small Disadvantaged Business	4.11%	5.00%	5.00%
Service Disabled Veteran Owned Small Business	1.35%	3.00%	1.90%
HUBZone	2.04%	3.00%	2.40%

Plan Progress:	100
✓ Full response - Unacceptable response ~ Partial response	
✓ Has implemented a strategy to increase the number of competitively awarded contracts to small businesses.	✓
✓ Has demonstrated top-level Agency commitment to small business contracting.	✓
✓ Planned significant events to increase small business participation in the procurement process during the period.	✓
✓ Demonstrated the small business data is accurately reported in FPDS-NG during the period. Verified & Cleared FPDS-NG Anomalies.	✓
✓ Demonstrated the policies and procedures are in place to ensure compliance with subcontracting plans and attainment of subcontracting goals during the period.	✓
✓ Demonstrated no unjustified bundling has taken place during the period.	✓
✓ Planned training to contracting staff/managers in executing small business/socioeconomic procurements during the period.	✓
✓ Planned to collaborate with SBA on formulation of small business procurement policy initiatives during the period.	✓
✓ Agency submits all strategic plans and reports that became due to SBA during the reporting period.	✓

Grading Scale	
A+	≤ 150% but ≥ 120%
A	< 120% but ≥ 100%
B	< 100% but ≥ 90%
C	< 90% but ≥ 80%
D	< 80% but ≥ 70%
F	< 70%

Comments:

Graded Agency:

Department of Defense (DoD) prime contracting decisions are bounded by the DoD mission, which is to provide military force to deter war and to protect the security of our country. Hence, many DoD dollars are necessarily spent on major weapons systems, which includes contracts to build ships, airplanes and tanks.

In FY 2010, DoD spent over $50 billion on major contracts for defense systems. Although these contracts are counted as "small business eligible," there are virtually no small business opportunities available in these procurements; no small business, or group of small businesses, could be big enough to perform any of those contracts while staying within the existing size standards.

If all large contracts associated with major defense programs were removed from the small business eligible base, then in FY 2010, DoD far exceeded both the DoD goal and the Federal-wide goal. Without the $50 billion, DoD's small business achievement would be 25.28%.

Although DoD was unable to award to small businesses prime contracts for major acquisition systems, the quality of work that went to small businesses was exceptionally high. For example, DoD expended well over $5 billon for research and development performed by small businesses.

DoD small business received unprecedented support from leadership. The Under Secretary of Defense for Acquisition, Technology and Logistics included small business in his "efficiency and productivity in defense spending" initiatives. Small business is addressed in two of the five focus areas, and is a component of "Promote Real Competition" and "Improve Tradecraft in Services Acquisition." Also, the DoD acquisition workforce has been directed to "increase dynamic small business role in defense marketplace competition," and to "increase small business participation in providing services."

Another important achievement in FY 2010 was the development of DoD OSBP "maximum practicable opportunity" analysis model. This analysis helps identify maximum practicable small business opportunity and will allow DoD to focus resources on procurements that will provide the maximum benefit and improvement in small business achievements.

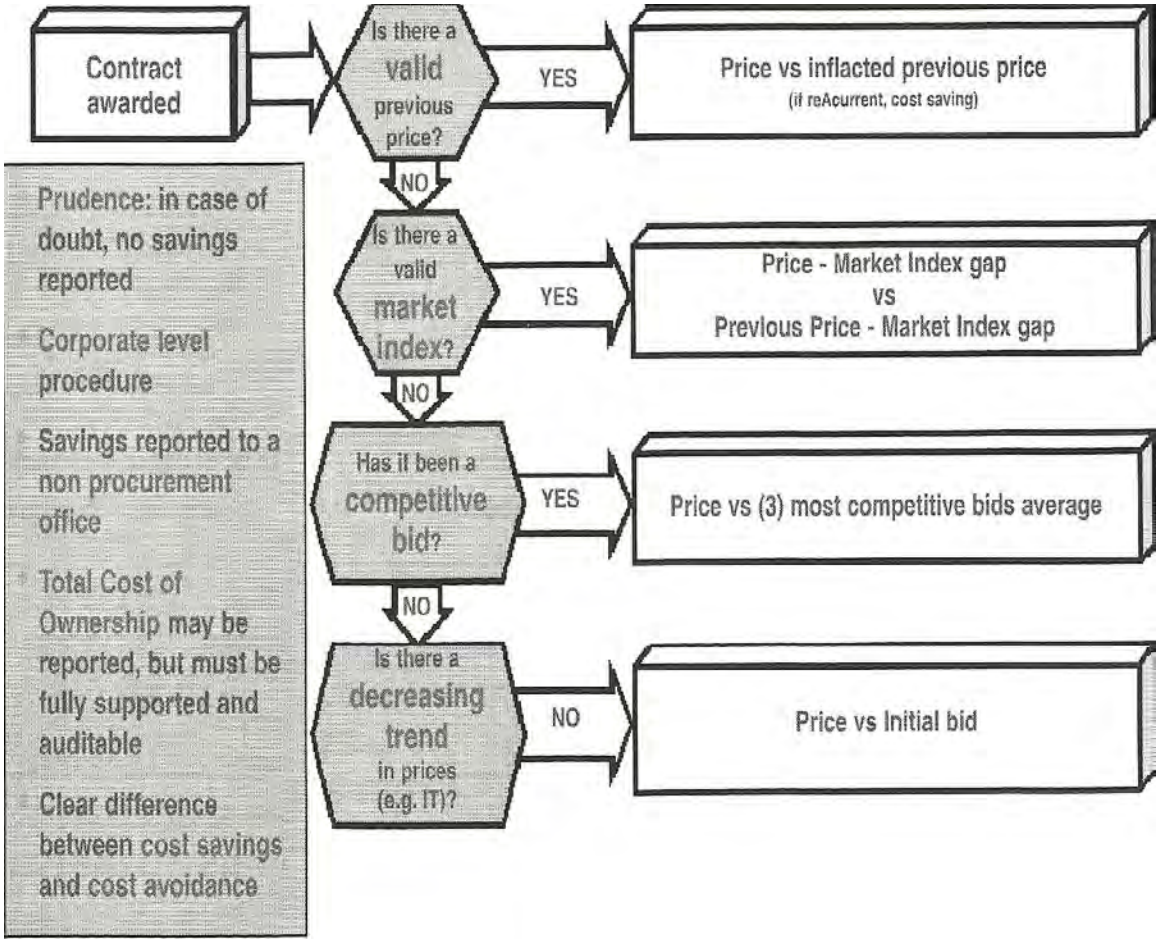
SBA:

The Department of Defense (DOD) met 2 of its 5 prime contracting goals: Small Disadvantaged Business and HUBZone. However, it did not meet its prime contracting goals for Small Business, Women Owned Small Business and Service-Disabled Veteran Owned Small Business.

Fiscal year 2010 prime contracting achievement saw increases over FY2009 in Women Owned Small Business and Service-Disabled Veteran Owned Small Business. DOD FY2010 achievement declined for Small Business, Small Disadvantaged Business and HUBZone.

DOD regularly attends Small Business Procurement Advisory Council meetings.

APPENDIX F. SAVINGS REPORTING METHODOLOGY



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APPENDIX G. MERCK'S PROCUREMENT SCORECARD

	OBJECTIVE	GP OBJECTIVE DESCRIPTORS	MEASURE
FINANCIAL	Maximize Shareholder Value	Grow Earnings	Budget
		Increase cash flow	
CUSTOMER	Become the Most Trusted Industry Leader in Delivering Value to Customers	Generate a positive impression of Merck by our customers	% spend with diverse suppliers (US/PR)

	OBJECTIVE	GP OBJECTIVE DESCRIPTORS	MEASURE
INTERNAL BUSINESS DRIVERS	Create a Lean & Flexible Business Model	Contribute to achieving an industry leading cost structure for Merck	Expense Savings Capital Savings
		Utilize standard, global, integrated processes, information and systems	Actual vs plan for integrating procurement resources Support deployment of "source to settle" activities for SAP deployment in targeted region
		Leverage sourcing management process to enhance flexibility and productivity	% spend covered by formal strategy Formal strategy coverage for top 80% spend (suppliers making up 80% of total spend) Critical Supplier Performance

	OBJECTIVE	GP OBJECTIVE DESCRIPTORS	MEASURE
CULTURE	Create a High Performance Organization	Create a High Performance Culture	Improve Culture Survey results
		Develop Transformational Leaders	Talent Management
		Optimize organizational structure, accountability & decision making	Actual vs plan for implementing an optimized organizational structure and governance model

Critical Issues Report, "Measuring Purchasing's Effectiveness," March 2008; www.capsresearch.org

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APPENDIX H. AFFCC COST SAVINGS SPREADSHEETS

Independent Government Cost Estimate (IGCE) — **BPAs FA4452-11-A-0001-FA4452-11-A-0007 Attachment 2**

Wood Color - Light	Wood Color - Medium	Wood Color - Dark	BPA NUMBER/ Vendor Name used for IGCE	Transitional Style (CHECK SOLID or VENEER COLUMN ONLY) Type A - Wood Veneer on minimum of Hardwood Veneer - core Plywood OR Type B - Solid Wood PROVIDE DETAILED SPECIFICATIONS to ensure all vendors quoting on same product. Use catalogs to assist in your description or state "brand name or equal" in attached SOW.	SOLID	VENEER	MFR SKU NUMBER	QUANTITY	GSA COMMERCIAL LIST PRICE	GSA MAS DISCOUNT (%)	BPA DISCOUNT (%)	NET PRICE
				DAYROOM/LIVING ROOM								
				Exposed Wood Frame Sofa w/ High-Grade Fabric or Leather, 68-80"W x 29-32"D					$	%	%	$
				Exposed Wood Frame Sofa w/ Mid-Grade Fabric or Vinyl, 68-80"W x 29-32"D					$	%	%	$
				Exposed Wood Frame Lounge Chair w/ High-Grade Fabric or Leather, 29-32"W x 29-32"D					$	%	%	$
				Exposed Wood Frame Lounge Chair w/ Mid-Grade Fabric or Vinyl, 29-32"W x 29-32"D					$	%	%	$
				Exposed Wood Frame Loveseat w/ High-Grade Fabric or Leather, 48-60"W x 29-32"D					$	%	%	$
				Exposed Wood Frame Loveseat w/ Mid-Grade Fabric or Vinyl, 48-60"W x 29-32"D					$	%	%	$
				Space Saving Recliner w/ High-Grade Fabric or Leather					$	%	%	$
				Space Saving Recliner w/ Mid-Grade Fabric or Vinyl					$	%	%	$
				Fully Upholstered Sofa w/ High-Grade Fabric w/ "Sled" Type Base					$	%	%	$
				Fully Upholstered Sofa w/ High-Grade Fabric or Leather, 68-80"W					$	%	%	$
				Fully Upholstered Sofa w/ Mid-Grade Fabric or Vinyl, 68-80"W					$	%	%	$
				Fully Upholstered Lounge Chair w/ High-Grade Fabric or Leather, 30-36"W					$	%	%	$
				Fully Upholstered Lounge Chair w/ Mid-Grade Fabric or Vinyl, 30-36"W					$	%	%	$
				Fully Upholstered Loveseat w/ High-Grade Fabric or Leather, 48-60"W					$	%	%	$
				Fully Upholstered Loveseat w/ Mid-Grade Fabric or Vinyl, 48-60"W					$	%	%	$
				Wood Coffee Table, Straight Leg, 42-48"W x 18-20"D					$	%	%	$
				Wood End Table, Straight Leg, 24" Sq or Rectangular					$	%	%	$
				Wood End Table, Straight Leg, 18-20"W x 22-26"D					$	%	%	$

Independent Government Cost Estimate (IGCE) — **BPAs FA4452-11-A-0001-FA4452-11-A-0007 Attachment 2**

Wood Color - Light	Wood Color - Medium	Wood Color - Dark	BPA NUMBER/ Vendor Name used for IGCE	Transitional Style (CHECK SOLID or VENEER COLUMN ONLY) Type A - Wood Veneer on minimum of Hardwood Veneer - core Plywood OR Type B - Solid Wood PROVIDE DETAILED SPECIFICATIONS to ensure all vendors quoting on same product. Use catalogs to assist in your description or state "brand name or equal" in attached SOW.	SOLID	VENEER	MFR SKU NUMBER	QUANTITY	GSA COMMERCIAL LIST PRICE	GSA MAS DISCOUNT (%)	BPA DISCOUNT (%)	NET PRICE
				DAYROOM/LIVING ROOM								
				Wood Coffee Table, Sled Base, 42-48"W x 18-20"D					$	%	%	$
				Wood End Table, Sled Base, 24" Sq or Rectangular					$	%	%	$
				Wood End Table, Sled Base , 18-20"W x 22-26"D					$	%	%	$
				Wood Back/Upholstered Seat, Dining Chair w/ High-Grade Fabric or Leather					$	%	%	$
				Wood Back/Upholstered Seat, Dining Chair w/ Mid-Grade Fabric or Vinyl					$	%	%	$
				Back and Seat/Upholstered Dining Chair w/ High-Grade Fabric or Leather					$	%	%	$
				Back and Seat/Upholstered Dining Chair w/ Mid-Grade Fabric or Vinyl					$	%	%	$
				Full Wood Armless Dining Chair					$	%	%	$
				Full Wood Dining Chair w/ Arms					$	%	%	$
				Bar Chair w/ High-Grade Fabric or Leather					$	%	%	$
				Bar Chair w/ Mid-Grade Fabric or Vinyl					$	%	%	$
				Wood Bar Stool - Counter and Bar Height					$	%	%	$
				Dining/Game Table, Square, 36" x 36"					$	%	%	$
				Dining/Game Table, Round, 36"dia					$	%	%	$
				Game Table w/ Flip-Over Top, Octagon, 54"dia x 31"H					$	%	%	$
				Dining/Game Table, Rectangular, 48"W x 30"D					$	%	%	$
				Café Table, Round, 24"dia					$	%	%	$
				~~Gaming Consoles (PlayStation, Xbox, etc)**~~					$	%	%	$
				TV Stand, 42-58"W x 15-20"H					$	%	%	$
				TOTAL NET PRICE					→			$

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